



# Five ways New Zealand can accelerate a sustainable high-tech ecosystem

## Insights from Industry Leaders

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# ENTREPRENEURIAL ECOSYSTEM



# About Free Range

Based in Wellington, Free Range's mission is to build the capability and connectivity of startups. Linc Gasking and Joshua Feast created Free Range in May 2013 in an attempt at closing the funding gap, growing the national innovation ecosystem, and building bridges to global best practice and networks.

*Linc Gasking:* In 1998, then 21, Linc co-founded Countingdown.com in Los Angeles while living in Melbourne. The site was acquired by Pop.com (DreamWorks) in 2000. In 2005 he co-founded a Portland-based technology incubator, entp.com, behind apps Lighthouse and Tender. In 2011 Linc co-founded the Adventure Wellington Charitable Trust, a local community group, now with almost three thousand members. In 2012 Linc co-founded education startup Chalkle.com in Wellington with Silvia Zuur. In 2012 they were nominated as finalists for Wellingtonians of the Year 2012 and named Absolutely Positively Wellingtonians in 2013.

*Joshua Feast:* In 2005, Joshua began his study of business and startups at Massachusetts Institute of Technology (MIT) as New Zealand's first Fulbright Platinum-Triangle Scholar in Entrepreneurship. He co-founded Cogito Corp out of a stream of research he discovered at MIT's Media Lab, and has since built it into a multi-million dollar business delivering analytic software that continuously senses human behavior and infers psychological state. Through Cogito, Josh works with multi-nationals like Aetna and Humana, and works on R&D around mental resilience for DARPA, the US Dept of Defence's high-tech funding arm.

## Background to this report

In June 2013, Free Range invited Li Ka-Shing's Horizons Ventures to visit New Zealand and meet high-tech startups. Horizons Ventures is one of the world's most successful early stage startup venture capital firms, with past successes including Facebook, Siri, Spotify and Skype. Navigation app Waze was acquired by Google in 2013 for over US\$1 billion, and the proceeds (around US\$130 million) were donated by Mr Li to Israel's Technion university last month.<sup>1</sup>

In August 2013, Horizons Ventures toured four cities to meet eighty-two startups. Startups were selected by Free Range, Horizons Ventures and through referral. Startup representatives or alumni from a cross-section of New Zealand, including the ICEHOUSE, Enspiral, Southern Institute of Technology, Bizdojo, Creative HQ/Lightning Lab, Ministry of Awesome, Massey University, Otago University, Victoria

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<sup>1</sup> <http://blogs.wsj.com/digits/2013/09/29/li-ka-shing-donates-130-million-to-israeli-university/>

University and EPIC. Six firms were selected by Horizons Ventures for a final round of pitches in September.

The pitch event was attended by the Horizons Ventures team, including Director Solina Chau. Also in attendance was Mary Meeker of Kleiner Perkins, Caulfield & Byers, dubbed by Barron's as "Queen of the Internet";<sup>2</sup> Chamath Palihapitiya of The Social & Capital Partnership fund (formerly of Facebook); Shakil Khan (formerly of Spotify), and Nick D'Aloisio, the youngest person ever to receive venture capital (he was wired funding on his 16th birthday)<sup>3</sup> and who recently exited to Yahoo! for US\$30 million.

Horizons considered seventeen startups (21%) to fit their profile and be promising. One was acquired by another firm during the process, three had recently completed a round of funding, and others were not in funding mode. No funding has yet closed, but some talks are still ongoing. The results were markedly different from the Israel tour eighteen months earlier. While the format of that tour was similar, the outcome was over US\$100 million of investment in over twenty startups. This contrast matched Horizons' feedback that significant investment volume in New Zealand could still be about two years away.

Horizons Ventures invited Free Range to visit Israel and attend the Digital Life Design (DLD) 2013 conference in Tel Aviv, to learn from the local startup scene. DLD is a "*global network on innovation, digitisation, science and culture which connects business, creative and social leaders, opinion-formers and influencers for crossover conversation and inspiration.*"<sup>4</sup> Free Range also visited six other startup ecosystems to provide a global perspective, including Silicon Valley, San Francisco, Los Angeles, Las Vegas, Boston and Sydney.

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<sup>2</sup> Before her role at Kleiner Perkins, one of Silicon Valley's largest venture capital firms, Mary Meeker was lead manager at Morgan Stanley for the initial public listing of Netscape and Google.

<sup>3</sup> <http://www.telegraph.co.uk/technology/9885632/Nick-DALoisio-Britains-17-year-old-app-entrepreneur.html>

<sup>4</sup> <http://www.dld-conference.com>

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# Executive Summary

Startups and innovative high-growth companies create a disproportionate percentage of net new jobs worldwide. Just 4% of these companies generate over 70% of all new jobs in the United States. Half of the UK's employment growth between 2002 and 2008 came from just 6% of companies, with average annual growth in employment above 20%. These companies tend to be founded by entrepreneurs, and created within larger ecosystems.

A high-tech ecosystem becomes sustainable when successful serial entrepreneurs<sup>5</sup> reinvest their knowledge, capital and connections into successive ventures. New Zealand's relatively young ecosystem loses much of this reinvestment potential, because our local entrepreneurs and/or startups continue to relocate overseas, thus severing the recycling process. This report discusses how leveraging New Zealand's world-ranked livability, coupled with a facilitative regulatory environment might reverse the trend. It presents five key learnings and recommendations:

- 1. Let markets make winners; some of the best startups initially look bad.**  
Evaluate innovation grants and high-tech immigration on market-determined evidence, such as investment received from pre-qualified investors, not points and business plans.
- 2. Access to local software engineering teams is critical.**  
Intensify education quality and incentives in technical fields, such as local and international technical scholarships, subsidies, low fees, interest-free loans, school campaigns, and loan or degree postponement while a student leaves to co-found a company.
- 3. Incubators and startups need preferential procurement and pilot opportunities.**  
Create an online procurement marketplace, a commercialisation program, and leverage the support of large organisations with their mutual follow-on support for small startups.
- 4. The distance to startups' customers can be halved, through export assistance.**  
Create an electronically administered export development grant scheme, offering reimbursements for high-tech startups.
- 5. A dormant pool of early-stage capital already sits in New Zealand: sweat equity.**  
Simplify valuation requirements and defer tax (plus interest) of employee stock options until they are sold for cash.

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<sup>5</sup> Serial entrepreneurs are *individuals who have sold/closed at least one firm which they had a minority or majority ownership stake in, and currently have a minority or majority ownership stake in a single independent firm.* See [http://isb.sagepub.com/site/Virtual\\_Special\\_Issues/Habitual\\_Entrepreneurs\\_Intro.pdf](http://isb.sagepub.com/site/Virtual_Special_Issues/Habitual_Entrepreneurs_Intro.pdf)

The opinions and recommendations are the author's, based on advice from approximately one hundred and fifty entrepreneurs, investors and industry experts (half were international). The report emphasizes the fundamental contribution that serial and immigrant entrepreneurs can make to accelerating New Zealand's innovation ecosystem and economy. Many countries are implementing aggressive policies to attract and keep high-tech entrepreneurs, and the report provides examples, including an appendix with seven case studies of startup ecosystems.

**Table 1. Global comparison of policy targeting immigrant and serial entrepreneurs**

	Location	Initiative	NZ notes
<b>General startup initiatives</b>	South Korea	"Creative economy" initiative: R&D spending at 4% of GDP, US\$3 billion startup funding, tax cuts, delayed income tax deadlines.	Broad base low rate tax system not seeking to incentivize particular sectors
<b>Market-based evidence for immigration and grants</b>	Canada	Green card for high-tech startup entrepreneurs upon third party C\$75,000 local Angel investment.	New Zealand does not currently use local third-party investment as proxy for market validation.
<b>Access to talent</b>	Israel	Israeli Defense Force identifies and trains software engineering talent.	No talent identification analog in NZ. Firms and universities take this training role.
<b>Preferential procurement/pilots</b>	USA	Small Business Jobs Act, supporting small businesses compete for procurement opportunities. Online marketplace has been released as open source.	Procurement is currently being investigated by MBIE.
	Norway	Leverages government support of large organisations with their mutual follow-on support for hiring small startups.	Procurement is currently being investigated by MBIE.
<b>Cost of international customer acquisition</b>	Australia	Export Market Development Grant - 50% reimbursement on travel costs.	Speed and availability of existing grants limited in value for new high-tech startups.
<b>Tax-friendly stock options</b>	Singapore	Employee Stock Options (ESO) regularly used as part of a remuneration package. No capital gains or dividend taxes, and maximum corporate tax of 17%.	Stock options currently unwieldy and costly to set up.

# The global policy trend toward entrepreneurs

The inflection point for a policy trend toward entrepreneurs (the “entrepreneurial turn”)<sup>6</sup> was the pioneering 1979 discovery by MIT researcher David Birch,<sup>7</sup> that 82% of new jobs were generated in small rather than large US firms. Paul Reynolds of the University of Minnesota discovered that high-growth startups and companies (just 25% of companies, called gazelles) were responsible for 60% of the attributed new jobs, 80% of new-company sales and 80% of new-company out-of-state exports. These results have been replicated worldwide. Between 1994 and 1998, startup and high growth companies generated more than 80% of new jobs in the Netherlands. As Just 6% of gazelles generated half of the UK’s net new jobs between 2002 and 2008.

*The most important message of this research is that supporting excellence and innovation in the economy is not an elitist policy, benefiting only a small group of winners. On the contrary, the job creation record of growth firms suggests that it is the best way of creating widespread prosperity and opportunity.*<sup>8</sup>

Enrico Moretti, author of the “New Geography of Jobs” and professor at the University of California, found that “each innovation economy job supports up to five jobs elsewhere...because sectors like the digital economy are labour-intensive, well-paid, and tend to cluster - amplifying the benefits.”<sup>9</sup>

With many countries working to become “idea factories”,<sup>10</sup> ongoing studies provided “strong evidence” for a policy shift to entrepreneurs rather than enterprises.

*To maximize returns on public policy investments, the case for ‘targeting’ assistance towards ‘winning businesses’ (Storey, 1994) has been made. There is, however, some doubt about whether such assistance is necessary (Holtz-Eakin, 2000), or effective (Bridge et al. 1998). In contrast, the identity and behaviour of ‘winning entrepreneurs’ has been neglected. Some policy-makers and practitioners are now considering whether resources could be more effectively utilized if attention was refocused towards the entrepreneur....*<sup>11</sup>

Professor Paul Westhead,  
Nottingham University Business School

<sup>6</sup> <http://ideas.repec.org/a/spr/anresc/v44y2010i1p83-109.html>

<sup>7</sup> <http://eng.entrepreneurskapsforum.se/wp-content/uploads/2011/02/Patternsandtrends.pdf>

<sup>8</sup> <http://www.nesta.org.uk/sites/default/files/vital-six-per-cent.pdf>

<sup>9</sup> <http://www.cdmn.ca/wp-content/uploads/2013/06/DEEP-Centre-Employment-Innovation-Growth-April-2013.pdf>

<sup>10</sup> Dan Senor and Saul Singer, *Start-up Nation* (Boston: Twelve, 2011), 219.

<sup>11</sup> <http://eservices.afbini.gov.uk/erini/pdf/SPWesthead.pdf>



*In order to understand entrepreneurship and to stimulate the birth rate of new companies, policy makers must consider the individual as the unit of analysis. At present measurements of economic activity and initiatives to stimulate it (such as grants and business loans) are directed at the firm level...We contend that there is strong evidence in the data presented to support the first proposition (Rosa, 1998) that policy makers need to shift their attention to the individual as the unit of analysis.*<sup>12</sup>

Shailendra Vyakarnam, Director  
Centre for Entrepreneurial Learning, Cambridge University

In the past ten years, many governments have made entrepreneurship a policy priority.<sup>13</sup> They have begun to separate entrepreneurship policies away from their SME policies and focus attention on high-tech entrepreneurs.

Lundstrom and Stevenson, (2001) define entrepreneurship policy as:<sup>14</sup>

- policy measures taken to stimulate entrepreneurship
- policy measures that are aimed at the pre-start, the start-up and post-start-up phases of the entrepreneurial process.
- designed and delivered to address the areas of motivation, opportunity and skills.
- with the primary objective of encouraging more people in population to consider entrepreneurship as an option.

Some examples of countries with entrepreneurship policies:

**Israel:** The launch of over six decades of government policies which helped build a thriving entrepreneurial ecosystem were assisted by Israel's first (Weizmann) and fourth (Katzir) presidents. Both were scientists, and believed strongly in the role of science in national defense and social prosperity.<sup>15</sup> Israel's entrepreneurial success has been linked to heavy R&D investment and compulsory military service policy, with support into entrepreneurship on leaving the armed forces.

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<sup>12</sup> Vyakarnam, *Serial entrepreneurs as "incubators". It is not bricks and mortar but inspiration and leadership that makes for incubation* (Sinergie), 2006.

<sup>13</sup> A comprehensive index of selected policies and initiatives is available at [http://unctad.org/en/PublicationsLibrary/diaeed2012d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/diaeed2012d1_en.pdf)

<sup>14</sup> [http://www.gphd.ktk.pte.hu/files/tiny\\_mce/File/Vedes/Anestis\\_Fotiadis\\_disszertacio.pdf](http://www.gphd.ktk.pte.hu/files/tiny_mce/File/Vedes/Anestis_Fotiadis_disszertacio.pdf)

<sup>15</sup> <http://www.forbes.com/sites/danisenberg/2011/02/11/start-up-notions-where-israeli-entrepreneurship-really-came-from/>

**United States:** On January 31, 2011, President Obama announced the creation of the Startup America initiative.<sup>16</sup> In his 2012 State of the Union Address, he said, “*Most new jobs are created in startups and small businesses.*”<sup>17</sup> The US Small Business Association defines the government’s key levers:

*We deliver financial capital access via our Small Business Investment Company (SBIC) program, a US\$3 billion a year growth capital program which operates at a zero subsidy cost to the American taxpayer. For small business access to intellectual property and federal research dollars, our Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs set-aside about US\$2.5 billion yearly for small businesses. These three programs, coupled with our Impact Investment and Early Stage Innovation [US\$2 billion 1:1 privately matched<sup>18</sup>] initiatives, are underpinned by public-private partnerships that have worked and delivered on their mission over decades.*

**Ireland:** The National Entrepreneurship Policy Statement reports:<sup>19</sup> *Governments don’t create jobs, successful businesses and entrepreneurs do, but Government has a key role in making sure that the environment is as supportive as possible to allow that to happen...A generally supportive business environment for start-up companies now exists in Ireland evidenced by the presence of entrepreneur boot camps, internationally syndicated investors, competitive tax and regulatory systems and the introduction of entrepreneur and investor visa regimes. This environment is conducive not only to indigenous start-ups, but to attracting overseas entrepreneurs to come and start their business here.*

**Croatia:** The National Innovation System & Innovation Governance programme has an emphasis on entrepreneurship (“*it begins and ends with entrepreneurship*”) and plan to increase R&D to 3% of GDP. The recommended strategy for Croatia by Dr Julia Djarova at the International Conference of Entrepreneurship in 2013 included creating a national heroes award inspired by the innovator’s award in Poland, entrepreneurship classes at secondary school and universities, incubators and clusters around universities (similar to IMEC Belgium), and young entrepreneur programmes with Public Private Partnership (PPP) construction.

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<sup>16</sup> <http://www.whitehouse.gov/economy/business/startup-america>

<sup>17</sup> [http://www.sba.gov/about-sba/sba\\_initiatives/startup\\_america/about\\_startup\\_america](http://www.sba.gov/about-sba/sba_initiatives/startup_america/about_startup_america)

<sup>18</sup> <http://www.whitehouse.gov/startup-america-fact-sheet>

<sup>19</sup> [http://www.djei.ie/publications/enterprise/2013/Public\\_Consultation\\_A\\_National\\_Entrepreneurship\\_Policy\\_Statement\\_for\\_Ireland.pdf](http://www.djei.ie/publications/enterprise/2013/Public_Consultation_A_National_Entrepreneurship_Policy_Statement_for_Ireland.pdf)

**South Korea:** US\$2.9 billion has been pledged in funding for startups, particularly in technology, as part of President Park Geun-hye's "creative economy" policy initiative and national goal of "promoting creative industries". This included US\$89 million to support entrepreneurs struggling after failure, and government incentives such as tax cuts and delayed deadlines for paying income taxes if investors recycle returns into new businesses.<sup>20</sup> As of October 24th 2013, South Korea has increased its R&D spending to 4.03%, now second among OECD countries only to Israel, which invests 4.38%.<sup>21</sup>

**Thailand:** The National Science Technology and Innovation Policy Office (STI) have targeted 2% of GDP on R&D by 2021<sup>22</sup>, and have identified a "Valley of Death" in technology commercialisation for entrepreneurs, including law/regulation, capital, manpower, and infrastructure (pilot/testing centres). They are proposing the increase of tax benefits for R&D to 300%.

**Finland:** Government encourages entrepreneurship and removes "the impediments to the growth of firms and companies" by promoting training, tax incentives and social security of entrepreneurs. Finland ties support to large companies to a requirement that they cooperate with small companies.

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A 2012 report for entrepreneurship shows some recent results amongst the Nordic countries, Finland, Iceland, Norway, Denmark and Sweden:

*The strong framework conditions for entrepreneurship that are gradually being developed in the Nordic countries have led to many startups. Entrepreneurship is attracting more media attention, and entrepreneurs now have a much better public image. The Nordic entrepreneurial culture is now closer to the entrepreneurial culture of the best-performing countries. Young Nordic growth firms (gazelles) have considerable impact on job creation in relation to their number. In the Nordic region, a total of 602 gazelles created 29,588 new jobs during the period of 2006-2009.*

In 2012, the United Nations passed Resolution 67/202, proposed by Israel, to encourage entrepreneurship due to the positive role it plays in driving job creation. One hundred and twenty nine countries voted in favour, including New Zealand.<sup>24</sup>

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<sup>20</sup> <http://online.wsj.com/news/articles/SB10001424127887323393804578554681586293800>

<sup>21</sup> <http://english.yonhapnews.co.kr/business/2013/10/24/18/0501000000AEN20131024008600320F.html>

<sup>22</sup> [http://apbf.unescap.org/2013/MBDW\\_files/files/MBDW-Day2-S4-National-Science-Technology-And-Innovation-Policy-Office-Kitipong.pdf](http://apbf.unescap.org/2013/MBDW_files/files/MBDW-Day2-S4-National-Science-Technology-And-Innovation-Policy-Office-Kitipong.pdf)

<sup>23</sup> <http://www.merit.unu.edu/publications/wppdf/2009/wp2009-050.pdf>

<sup>24</sup> <http://www.un.org/News/Press/docs/2012/ga11332.doc.htm>

The resolution;

- encourages governments to reduce bureaucratic obstacles, social barriers and lack of financing;
- stresses the need for a comprehensive approach to entrepreneurship, including capacity-building with a focus on education and skills development.<sup>25</sup>

## Why serial entrepreneurs are important

*A shift in the allocation of resources towards experienced [serial] entrepreneurs... may yield greater returns.*<sup>26</sup>

US innovation policy advisor Dr Burton Lee says serial entrepreneurs are important and “*deserve much more attention and their importance may [not] yet be fully understood by policy makers*”.<sup>27</sup> The influence of serial entrepreneurs represents a common theme among the startup ecosystem case studies. Who are they, and why are they important?

Serial entrepreneurs are responsible for starting a disproportionately large number of businesses.

*In 2011, a Global Entrepreneurship Monitor surveyed more than 140,000 adults in 54 economies, estimated that 388 million entrepreneurs were actively engaged in starting and running new businesses. But, [serial entrepreneurs] who have been in business before have established approximately 40% of new [tech and non-tech] businesses.*<sup>28</sup>

Serial entrepreneurs also tend to be more successful (and therefore, more impactful) than novice entrepreneurs.<sup>29</sup> Technology news site Techcrunch conducted a study of the most outstanding tech startups, and nearly 80% had at least one co-founder who was a serial entrepreneur.<sup>30</sup>

Serial entrepreneur Paul Graham is founder of the world’s top incubator, Y-Combinator. A few years ago, he began to film interviews of prospective inductees to the acceleration program to isolate patterns amongst the startups which ultimately failed.

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<sup>25</sup> [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/67/202](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/67/202)

<sup>26</sup> <http://eservices.afbini.gov.uk/erini/pdf/SPWesthead.pdf>

<sup>27</sup> [http://ec.europa.eu/enterprise/policies/innovation/files/proinno/inno-grips-policy-brief-2\\_en.pdf](http://ec.europa.eu/enterprise/policies/innovation/files/proinno/inno-grips-policy-brief-2_en.pdf)

<sup>28</sup> [http://isb.sagepub.com/site/Virtual\\_Special\\_Issues/Habitual\\_Entrepreneurs\\_Intro.pdf](http://isb.sagepub.com/site/Virtual_Special_Issues/Habitual_Entrepreneurs_Intro.pdf)

<sup>29</sup> <http://www.leo.itesm.mx/GEM/Reporte%20Global%202012.pdf>

<sup>30</sup> <http://techcrunch.com/2013/11/02/welcome-to-the-unicorn-club/>

*[Graham] was already aware of a few — investors tended to be biased against older founders, for instance. “The cutoff in investors’ heads is 32,” Graham says. “After 32, they start to be a little skeptical.” And Graham knew that he had his own biases. “I can be tricked by anyone who looks like Mark Zuckerberg. There was a guy once who we funded who was terrible. I said: ‘How could he be bad? He looks like Zuckerberg!’”<sup>31</sup>*

Techcrunch found that teenage and twenty-something founders, portrayed so often in the media as the norm, and favoured by investors like Graham, were outliers. Companies with well-educated, thirtysomething co-founders with a history together were most successful. The average founder age of the most successful startups was thirty-four. Audience driven companies like Facebook, Twitter and Tumblr have the youngest founders (averaging thirty) while enterprise software founders averaged thirty-eight. Furthermore, 90% of successful co-founding teams had years of history together, either from school or work.

Even Nick D’Aloisio, at 16 the youngest person to receive venture funding, was a serial entrepreneur. By the time he had founded Summly at fifteen, he had been releasing apps for years. D’Aloisio began teaching himself to programme at “11 or 12”, and started selling apps soon after. “The first app I did was called Finger Mill, it was a treadmill for your fingers...then I did one called *TouchWood*, which was ‘Free your superstitions’ (the app made the screen like wood and made a sound when you knocked on it). Every time I [created] an app I learned more.”<sup>32</sup>

It seems that part of an entrepreneur’s innate personality drives many of them, including D’Aloisio, to want to continue to solve more problems and start more companies, despite multimillion dollar exits. Studies show serial entrepreneurs have a stronger need for achievement than novice entrepreneurs, more likely to take a course of action that is uncertain, and to do something unproven.<sup>33</sup> This cluster of behaviours appears to have a socio-biological context, with increasing amounts of scientific support, including a comprehensive UK twin study which confirmed high genetic factors of entrepreneurship.<sup>34</sup> Another MIT study using brain scans<sup>35</sup> of self-described entrepreneurs found neurological evidence of a different type of thinking process. Entrepreneurs exhibited an ambidextrous decision-making process which used both sides of their frontal cortex.

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<sup>31</sup> [http://www.nytimes.com/2013/05/05/magazine/y-combinator-silicon-valleys-start-up-machine.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2013/05/05/magazine/y-combinator-silicon-valleys-start-up-machine.html?pagewanted=all&_r=0)

<sup>32</sup> <http://www.theguardian.com/technology/2013/mar/29/summly-creator-nick-daloisio-interview>

<sup>33</sup> <http://www.sbaer.uca.edu/research/asbe/2000/21.pdf>

<sup>34</sup> <https://openair.rgu.ac.uk/bitstream/10059/713/1/Smith%20neurological%20drivers.pdf>

<sup>35</sup> <http://www.fastcompany.com/3004746/mit-brain-scans-show-entrepreneurs-really-do-think-different>

## Recycling the startup ecosystem

*The nutrient cycle is nature's recycling system. All forms of recycling have feedback loops that use energy in the process of putting material resources back into use.*<sup>36</sup>

Serial entrepreneurs play a key role in the recycling component in the innovation ecosystem. Compared with a novice entrepreneur, serial entrepreneurs are able to build on their experience and networks from past successes and failures.

*The flow of knowledge, the acceleration of venture creation and the pathways of innovation do not occur in a vacuum. They occur through the energy and power of social networks that are embedded in the environment... The entire venturing and innovation cycle appears to rely on the quality of the connections rather than on formal business plans and physical "incubators"... Large personal networks of entrepreneurs may increase the likelihood of locating clients for their products and services, suppliers to their firms, who are socially bounded. Network contacts can be an important resource in recruiting talented executive officers and technical staff, as well as establishing ties with venture capitalists, an important precursor of superior venture performance.*<sup>37</sup>

Shailendra Vyakarnam, Cambridge University

Vyakarnam suggests serial entrepreneurs could be viewed as autonomous incubators.

*...there is a need to understand the role of individuals in their capacity as incubators. The traditional definition of an incubator is that of an institution or physical environment in which nascent businesses are formed or innovative ideas developed... However, the traditional view only partially recognises the role that... serial entrepreneurs play in the process of providing advice, contacts, transferring tacit knowledge, inspiring and providing self-confidence to those who will make it happen...incubation is a form of individual mentorship that takes place between the managers of incubator centres and the entrepreneurs.*<sup>38</sup>

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<sup>36</sup> <http://www.ipni.net/article/IPNI-3326>

<sup>37</sup> Vyakarnam, *Serial entrepreneurs as "incubators". It is not bricks and mortar but inspiration and leadership that makes for incubation* (Sinergie), 2006. (Shailendra Vyakarnam was then Director, Centre for Entrepreneurial Learning, Cambridge University)

<sup>38</sup> Vyakarnam, *Serial entrepreneurs as "incubators". It is not bricks and mortar but inspiration and leadership that makes for incubation* (Sinergie), 2006.

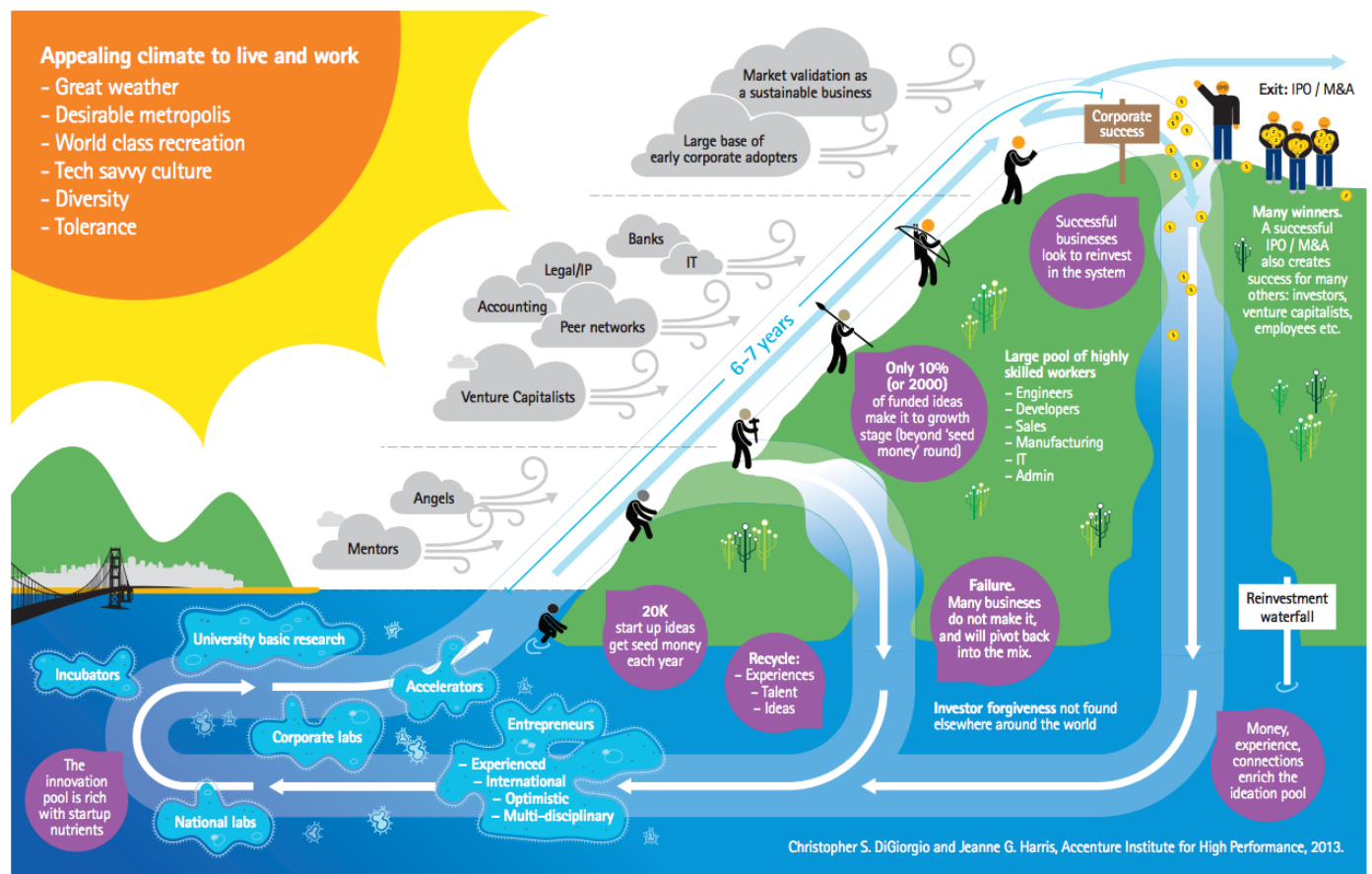
This process is most visible in Silicon Valley. Entrepreneurs who took part in the first high-tech Dot Com boom/bust in 2000 have since grown their capabilities and networks to become mentors, serial entrepreneurs or meta-entrepreneurs (portfolio entrepreneurship or other forms of investment activity and involvement) to the next generation of entrepreneurs to come along. Paul Graham describes the recycling process;

*Startups beget startups. People who work for startups start their own. People who get rich from startups fund new ones. I suspect this kind of organic growth is the only way to produce a startup hub, because it's the only way to grow the expertise you need.*<sup>39</sup>

**Figure 1. Silicon Valley's recycling process**

### Silicon Valley Tech Innovation Ecosystem

Silicon Valley's greatest innovation – how companies evolve from ideas to successful enterprises



Source: Accenture Institute<sup>40</sup>

<sup>39</sup> <http://www.paulgraham.com/siliconvalley.html>

<sup>40</sup> Used with permission.

The Silicon Valley ecosystem benefited from a few key events, beginning with Stanford University being founded in 1891, Lee de Forest (inventor of the triode) arriving in Palo Alto in 1910, and Stanford Industrial Park being established in partnership with the university in 1951 with Varian Associates, General Electric and Eastman Kodak. In 1957, William Shockley, the son of a Stanford alumni, founded the first startup to work on silicon semiconductor devices in the Silicon Valley area (Palo Alto). Shockley came from Bell Laboratories, based on the East Coast, where he shared a Nobel Prize in Physics for inventing the first transistor in 1956. He decided on the Bay Area because he “had grown up there and remembered how nice it was.” Silicon Valley’s startups and founders can be traced back to Shockley, like a giant family tree. Just eight of Shockley’s former employees founded 65 new enterprises, which started the chain reaction.<sup>41</sup> If 1957 was Year Zero, then tech startups being founded in Silicon Valley in 2014, will be doing so in an ecosystem 57 years old.

Compared to this, New Zealand is still barely a teenager, as are the Nordic countries. The Nordic Growth Entrepreneurship Review 2012<sup>42</sup> describes the lack of experience faced by many young ecosystems, including Australia and New Zealand, with the recommended solution of retaining successful serial entrepreneurs:

*Throughout the Nordic region, there is a lack of ability and skills to accelerate growth in young firms... resulting in difficulties in attracting later-stage venture capital...The single most important thing when creating strong ecosystems would be that the entrepreneurs succeeding with an early winner firm remain active in the ecosystem and help create growth in new young high-potential firms, by re-investing their profit and experience back into the ecosystem as investor, mentor or other. The successful entrepreneurs have experienced growing a young firm of their own, thus it is this unique insight that is valuable for the development of other young firms and for the development of strong ecosystems.<sup>43</sup>*

In New Zealand, serial entrepreneurs are equally prevalent in successful startups as they are in international ecosystems. An example is Geo-Op, a mobile workforce management startup. Geo-Op listed on the NZAX on October 31 2013 after successfully raising \$10 million in a private share offering, and was reported to be more than three times oversubscribed. Geo-Op’s CEO, Leanne Graham, joined the company after leaving cloud accounting startup Xero, where her New Zealand “go-to-market” strategy is being replicated around the world. Before Xero (founded by serial entrepreneurs Rod Drury

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<sup>41</sup> <http://silicon-valley-history.com/>

<sup>42</sup> [http://www.tem.fi/files/35549/The\\_Nordic\\_Growth\\_Entrepreneurship\\_Review\\_2012.pdf](http://www.tem.fi/files/35549/The_Nordic_Growth_Entrepreneurship_Review_2012.pdf)

<sup>43</sup> [http://www.tem.fi/files/35549/The\\_Nordic\\_Growth\\_Entrepreneurship\\_Review\\_2012.pdf](http://www.tem.fi/files/35549/The_Nordic_Growth_Entrepreneurship_Review_2012.pdf)



and Hamish Edwards), Graham founded Enpise Software, a spin-off from a previous company. Prior to Enpise, Graham had a number of successful startup divisions, in a number of businesses.

Xero's co-founders, employees or add-on partners were directly connected to twelve of the startups featured on the Horizons Ventures tour (15%). Many of Xero's add-on partners are startups based in New Zealand, and at least three other employees have launched startups since the tour ended in September.

Before Xero, the \$700 million sale of auction site TradeMe to Fairfax represented a turning point in the local high-tech ecosystem, releasing significant capital to New Zealand entrepreneurs and investors. Its founders and employees have since created more startups, including Vend. Founded by former TradeMe software architect Vaughan Rowsell, the startup has raised \$11 million of capital in three years, including half from New Zealand investors. Vend investors include TradeMe founder Sam Morgan and his third employee, Rowan Simpson.

## Why immigrant entrepreneurs are important

Migrant entrepreneurs can create jobs, boost global competitiveness, and influence the transfer of resources, information and technological know-how, reports Global Entrepreneurship Monitor's 2012 Global Report.<sup>44</sup>

The UN reports that over 175 million people live permanently outside their countries of birth.<sup>45</sup> A 2010 study<sup>46</sup> found that immigrant entrepreneurs become a source of new economic opportunities for regions and cities, generating:

- new job creation
- the introduction of novel new products and processes influenced by their diversity
- marketing for the region, and 'creative city' branding which attracts dramatically more visitors, talent, innovative companies and new residents to creative areas
- stronger social capital (eg trust)
- healthy competition to established firms, encouraging improvement of product quality and services or price-reduction

<sup>44</sup> <http://www.gemconsortium.org/docs/download/2645>

<sup>45</sup> [http://www.hbs.edu/faculty/Publication%20Files/09-013\\_15702a45-fbc3-44d7-be52-477123ee58d0.pdf](http://www.hbs.edu/faculty/Publication%20Files/09-013_15702a45-fbc3-44d7-be52-477123ee58d0.pdf)

<sup>46</sup> [http://www.waikato.ac.nz/\\_data/assets/pdf\\_file/0020/116534/Kourtiti-Prestn.pdf](http://www.waikato.ac.nz/_data/assets/pdf_file/0020/116534/Kourtiti-Prestn.pdf)

A UC Santa Cruz study demonstrated that immigrants are almost 30% more likely to launch a business than non-immigrants. The study also disproved “commonly-held perceptions” of immigrants, with evidence that they are more likely to generate higher-performing businesses than local-born entrepreneurs.<sup>47</sup> In New York, immigrants constitute over a third of the population, but make up nearly half of the business owners. They had a high presence (40% ownership) in higher-skilled professions such as computer systems design.<sup>48</sup>

One third of venture-backed companies in the United States that went public between 2006 and 2012 had at least one immigrant founder. Immigrants today are more than twice as likely to found businesses as their native born counterparts and are responsible for more than 25% of all new business creation and related job growth in the US. More than 40% of Fortune 500 companies were founded by immigrants or the children of immigrants. Companies with at least one immigrant founder in the US represent a market capitalization of \$900 billion and employ approximately 600,000 people globally.<sup>49</sup>

Despite challenges presented by US immigration policy, around half of Silicon Valley’s startups are founded by immigrants, including Google’s Sergey Brin, Intel’s Andrew Grove, Instagram’s Mike Krieger, Stripe’s Patrick and John Collison, YouTube’s Steve Chen, and Yahoo!’s Jerry Yang.<sup>50</sup> Y Combinator’s Paul Graham describes how a country might operate a recruitment strategy for immigrant high-tech entrepreneurs through smarter immigration policy than Silicon Valley:

*Silicon Valleys are made of people, remember...America's immigration system has never been well run, and since 2001 there has been an additional admixture of paranoia. What fraction of the smart people who want to come to America can even get in? I doubt even half. Which means if you made a competing technology hub that let in all smart people, you'd immediately get more than half the world's top talent, for free. US immigration policy is particularly ill-suited to startups, because it reflects a model of work from the 1970s. It assumes good technical people have college degrees, and that work means working for a big company...But a test that excludes Steve Jobs, Bill Gates, and Michael Dell can't be a good one. Plus you can't get a visa for working on your own company, only for working as an employee of someone else's. And if you want to apply for citizenship you daren't work for a startup at all, because if your sponsor goes out of business, you have to start over.... Imagine if, instead, you treated*

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<sup>47</sup>[www.businessweek.com/stories/2008-11-25/immigrants-are-more-likely-to-be-entrepreneursbusinessweek-business-news-stock-market-and-financial-advice](http://www.businessweek.com/stories/2008-11-25/immigrants-are-more-likely-to-be-entrepreneursbusinessweek-business-news-stock-market-and-financial-advice)

<sup>48</sup><http://cityroom.blogs.nytimes.com/2011/10/04/immigrants-play-key-role-as-city-entrepreneurs-study-finds/>

<sup>49</sup><http://www.fastcompany.com/3015616/the-shocking-stats-about-whos-really-starting-companies-in-america>

<sup>50</sup><http://venturebeat.com/2013/04/19/the-startup-visa-why-canada-made-it-a-priority-why-the-u-s-should-too/>

<sup>51</sup><http://www.forbes.com/sites/ilyapozin/2012/06/01/top-immigrant-owned-startups/>

*immigration like recruiting-- if you made a conscious effort to seek out the smartest people and get them to come to your country. A country that got immigration right would have a huge advantage. At this point you could become a mecca for smart people simply by having an immigration system that let them in.*<sup>52</sup>

Targeted immigration recruitment initiatives have recently begun in countries like the UK as part of their economic growth plan. In November 2013, the Home Office announced a premium programme which included a personal account manager.<sup>53</sup> In Canada, the Minister of Citizenship, Jason Kenney, recently announced a new programme that

*...allows [high-tech] startup entrepreneurs who attract [C\$75,000] investment from Canadian funds to get an immediate permanent residency in Canada, no conditionality, no temporary status. We think this is a tremendous opportunity that can provide certainty and permanence to many brilliant young international entrepreneurs who are living and working in the US but can't get their visa issues sorted out.*<sup>54</sup>

Chile is leading the new wave in South America with their Start-Up Chile programme, which has built a local ecosystem of over 750 high-tech startups by offering US\$40,000 per startup and one-year resident visas to entrepreneurs. As part of the programme, entrepreneurs are expected to visit universities and schools and give talks and mentor locals.<sup>55</sup>

In relation to the New Zealand startup scene, the Weta group are responsible for bringing in many skilled immigrants, including software engineers, and were loosely related to thirteen of the startups visited on the Horizons Ventures tour (16%), even though none of these involved filmmaking. There was also a direct connection to Jon Lemmon, co-founder of Loomio (a collaborative decision-making startup). US-born Lemmon entered New Zealand as a Weta Digital employee, where he learned the Python programming language. After leaving Weta, his programming skills were further developed at Enspiral, where he was taught Ruby on Rails. During 2012 and 2013, he trained the entire Loomio engineering team of seven in Ruby on Rails though most had minimal prior programming experience. The team now teaches the language to new co-founders without his involvement. With a growing global customer base, Loomio has become one of New Zealand's most exciting early-stage high-tech startups, featured in Pandodaily in 2013.<sup>56</sup>

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<sup>52</sup> <http://www.paulgraham.com/america.html>

<sup>53</sup> <http://www.theguardian.com/politics/2013/nov/06/theresa-may-great-club-uk-visa-service-launch>

<sup>54</sup> <http://www.bizjournals.com/sanjose/news/2013/05/20/video-grade-this-elevator-pitch-from.html>

<sup>55</sup> [http://ledna.org/sites/ledna.org/files/how\\_the\\_state\\_and\\_private\\_sector\\_can\\_partner\\_to\\_boost\\_support\\_to\\_smes.pdf](http://ledna.org/sites/ledna.org/files/how_the_state_and_private_sector_can_partner_to_boost_support_to_smes.pdf)

<sup>56</sup> <http://pandodaily.com/2013/05/02/occupy-democracy-loomio-attempts-to-re-invent-group-decision-making-as-a-co-op/>

# Attracting serial and immigrant high-tech entrepreneurs to New Zealand

One quarter of New Zealand's population were born overseas, and the Horizons Ventures tour demonstrates the impact of serial and immigrant entrepreneurs already have in the local high-tech industry. Horizons Ventures considered that 17 of the 82 startups on their tour of New Zealand (21%) showed promise,<sup>57</sup> including one which was separately acquired before the final pitch and three which had just completed funding rounds between \$2-\$10 million. Over 40% of this new generation of companies in New Zealand's high-tech space were co-founded by at least one immigrant serial entrepreneur:

- All six finalists were serial entrepreneurs. Of the 82 tech startups showcased, 53 (65%) had serial entrepreneurs as co-founders.
- Of the 17 startups (21%) showing promise, 15 had co-founders who were serial entrepreneurs (88%) - 135% more than the norm. Seven of those serial entrepreneurs were also immigrants (47%).
- The remaining three promising startups were founded by academic entrepreneurs. One team were disinterested in venture capital, as its New Zealand customer base provides sufficient profit to afford an enjoyable lifestyle for the founders, which the investors found frustrating.

Overall, Horizons considered the overall industry underdeveloped; and that the next generation of startups were "around two years away" from attracting international investment. Generally, the quality of design-led-thinking was noted,<sup>58</sup> but there was a lack of defensible engineering ("deep tech") which resulted from a more general gap in understanding of upstream acquisition drivers. This gap in acquisition knowledge was potentially an area where more international entrepreneurial experience may have assisted.

Other international venture capital activity has begun in New Zealand's startups. Peter Thiel's Valar Ventures began investing in Xero in 2010 with US\$3 million, with follow-on rounds bringing the total to around US\$200 million. Thiel also invested US\$2 million in Booktrack in December 2012.<sup>59</sup> In October

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<sup>57</sup> Of the seventeen promising startups, four are based in Auckland, eleven are in Wellington, one is split between Wellington and Christchurch, and one is in Christchurch.

<sup>58</sup> Wesley Yun, Creative Director of Samsung (keynote speaker at Wellington UX Design Day 2013) also spoke highly of the level of local design thinking

<sup>59</sup> <http://www.crunchbase.com/financial-organization/valar-ventures>

2013, Taiwanese investors chose to invest in two startups in Wellington.

## “The best New Zealand we can be”

*My comment consistently to people is not to be like Silicon Valley because you're not gonna succeed at that. The goal is to be the best you can be of yourself. Learn as much as you can from Silicon Valley and other cultures, but if you're Boulder, be the best Boulder you can be. If you're Boston, be the best Boston you can be.<sup>60</sup>*

Brad Feld, TechStars

Many sources interviewed for this report agreed that the biggest mistake other cities make about Silicon Valley is to try and be another Silicon Valley. “*What it takes is the right people. If you could get the right ten thousand people to move from Silicon Valley to Buffalo, Buffalo would become Silicon Valley,*” says Paul Graham. “*I think you only need two kinds of people to create a technology hub: rich people and nerds. They are the limiting reagents in the reaction that produces startups, because they are the only ones present when startups get started. Everyone else will move.*”<sup>61</sup> Graham says these “right people” prefer cities with personality.

*A town with personality is one that doesn't feel mass-produced. So if you want to make a startup hub -- or any town to attract the "creative class", you probably have to ban large development projects...Most towns with personality are old, but they don't have to be. Old towns have two advantages: they're denser, because they were laid out before cars, and they're more varied, because they were built one building at a time...A government that asks 'How can we build a Silicon Valley?' has probably ensured failure by the way they framed the question. You don't build a Silicon Valley; you let one grow.<sup>62</sup>*

New Zealand has the opportunity to leverage its unique heritage of improvisational, anti-hierarchical and pioneering culture, with its reputation as one of the world's most liveable, least corrupt and free countries in the world. Furthermore, New Zealand has a top-ranking education system,<sup>63</sup> and was voted the easiest place to start a business. It has also proven ideal for early customer trials.

*New Zealand, tucked away deep in the southern hemisphere, offers a tech-savvy,*

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<sup>60</sup> <http://www.fastcompany.com/1446569/why-you-should-start-company-boulder>

<sup>61</sup> <http://www.paulgraham.com/siliconvalley.html>

<sup>62</sup> <http://www.paulgraham.com/siliconvalley.html>

<sup>63</sup> [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10851193](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10851193)

*English-speaking population where firms such as Google and Facebook can quietly test new products without risking major fallout if anything goes wrong. “We tend to be early adopters, any technology that reduces the tyranny of distance we’re keen on,”*  
*Malcolm Fraser, Chief Executive of the Auckland-based Future Cities Institute.*<sup>64</sup>

Auckland and Wellington consistently rank in the top twenty cities in the world, and are “attractive destinations for overseas expatriates.”<sup>65</sup> The Mercer’s 2010 Quality of Living Survey, covering 221 cities, placed Auckland and Wellington in 4th and 12th place, respectively. The Lonely Planet named Wellington the world’s “coolest” capital city in 2011. In 2013, Auckland made The Economist’s top ten most liveable cities, and Tripadvisor voted Queenstown as one of the world’s top destinations.

Highlighting the “new” in New Zealand with the recently announced Government marketing program, ‘open spaces, open hearts, open minds’ story helps to tie the clean, green image to related qualities of innovation, connectedness, values, resourcefulness and unique Maori aspects of national identity.<sup>66</sup>

Serial entrepreneur Victoria Ransom, one of the sources interviewed for this report, grew up in a remote farming community in New Zealand. In 2008, after graduating from Harvard Business School, she launched Wildfire, her third company. It was acquired by Google for a reported US\$450 million in August 2012.<sup>67</sup> Ransom believes that while New Zealand may struggle to match incentives from other countries, it needs to approach it from this lifestyle perspective.

*I think it could be quite tough to get successful serial entrepreneurs to relocate from a place like Silicon Valley to NZ - unless something like lifestyle change is a big motivator. I dont think that tax breaks or grants would be enough to encourage such entrepreneurs - especially given that if they have been successful in the past they are likely less hungry for things like grants or tax breaks. But NZ is a place that many people dream to live in.*

Prue Cruickshank of New Zealand’s Unitec Institute of Technology has researched New Zealand immigrant entrepreneurship based on the Long Term Business Visa, and agrees that lifestyle may offer an incentive, noting the lifestyle aspirations of serial entrepreneurs increase as they enter their thirties.

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<sup>64</sup><http://www.nzedge.com/early-adopters-of-technology-perfect-to-test-on/http://www.nzedge.com/early-adopters-of-technology-perfect-to-test-on/>

<sup>65</sup> <http://www.stuff.co.nz/national/3739128/>

<sup>66</sup> <http://story.newzealand.com/story>

<sup>67</sup> <http://www.virtual-strategy.com/2013/11/18/harvardstanford-duo-top-new-ranking-top-100-mba-startups>

In a recent study of New Zealand immigrants who chose to live in Wellington, the top four original attractions to the city were its unique appeal; the labour market; educational institutions, and family connections. Participants in the study stayed in Wellington because of the beauty, convenience, friendliness and diversity.<sup>68</sup>

Wellington has recently begun a marketing campaign to attract startups. Wellington was home to 65% of startups highlighted by Horizons Ventures.

Another of the world's top ten incubator accelerators, 500 Startups, is based in Silicon Valley.<sup>69</sup> Its founder Dave McClure, on his *Geeks on a Plane* visit to New Zealand in early 2013, believes it is only an issue of money. He says New Zealand could have a startup city with the help of a US\$10 million accelerator fund spent over three years to kick start the local scene.

## A climate of support for serial and immigrant high-tech entrepreneurs

The following recommendations are complementary to the work already underway through the government's Business Growth Agenda, and represent a variety of ways government could work with the entrepreneurial community to improve their operating environment.

1. Leverage market-based evidence for immigration and grants in high-tech.
2. Increase accessibility of software engineering teams to startups.
3. Offer procurement and pilot opportunities for high-tech startups.
4. Create a high-tech export development grant for startups.
5. Simplify employee stock options for high-tech firms.

Creating a climate of support is an evidence-based approach to assisting the startup ecosystem. A study by Global Entrepreneurship Monitor scholars, Levie and Autio (2011) was one of the first to show that alleviating the amount of red tape for entrepreneurs can increase the number and quality of entrepreneurs likely to enter into a new country.<sup>70</sup>

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<sup>68</sup> <http://www.dol.govt.nz/publications/research/why-wellington/why3.asp>

<sup>69</sup> <http://www.forbes.com/sites/tomiogeron/2012/04/30/top-tech-incubators-as-ranked-by-forbes-y-combinator-tops-with-7-billion-in-value/>

<sup>70</sup> <http://www.leo.itesm.mx/GEM/Reporte%20Global%202012.pdf>

*The reality of entrepreneurship is that it flourishes best in a climate of support -- when financial institutions provide capital, when large corporations pay attention to small ones, when governments at least don't obstruct company founders and at best offer them helping hands.*<sup>71</sup>

A report by the UK's National Endowment for Science Technology and the Arts (NESTA) concluded that a government that encourages and supports innovation can help create an environment conducive for growth.

*It also points out the importance of policies that facilitate the emergence of high-growth firms without requiring the government to try to pick winners. Ensuring ...effective markets for venture capital and growth finance is one way to do this.*<sup>72</sup>

An OECD Working Party carried out research which looked at the relationship between firm growth and job creation and the conditions, including government policies which removed obstacles for startups.

*Policies with a bearing on firm expansion at the early stages of the enterprise life cycle should be reviewed with respect to administrative measures affecting startup, financial and fiscal measures affecting venture capital supply and stock options, intellectual property regimes governing ownership of intangible assets, the flexibility of labour market policies and the aspects of education and training policies that affect the pool of skilled workers.*<sup>73</sup>

## 1. Leverage market based evidence for high-tech immigration and grants

Minniti (2008) in her research on “The Role of Government Policy on Entrepreneurial Activity: Productive, Unproductive, or Destructive?” found that picking winners is a job for a market, not an individual or selection team. A related European policy brief<sup>74</sup> concludes,

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<sup>71</sup> <http://www.inc.com/magazine/19890101/5491.html>

<sup>72</sup> <http://www.nesta.org.uk/sites/default/files/vital-six-per-cent.pdf>

<sup>73</sup> <http://www.oecd.org/cfe/smes/2493092.pdf>

<sup>74</sup> [http://ec.europa.eu/enterprise/policies/innovation/files/proinno/inno-grips-policy-brief-2\\_en.pdf](http://ec.europa.eu/enterprise/policies/innovation/files/proinno/inno-grips-policy-brief-2_en.pdf)



*...rather than trying to 'pick winners', policy makers should first of all set framework conditions right in order to prepare a fertile ground for winners to pick themselves.*

## Immigration

New Zealand's immigration point system has similar challenges to the US for serial entrepreneurs who;

1. are college dropouts despite multimillion dollar exits (a focus on qualifications as a proxy for ability, which in high-tech are often unrelated)
2. are unsure what their startup will be, or change their business part way into their immigration process (the visa is tied to the business, rather than the entrepreneur)
3. have extremely valuable experience and networks, the value of which is not measured nor taken into account (placing value on mentorship instead of financial alternatives)

Failure is part of the high-tech startup process, and immigration policy does not currently account for this.

New Zealand's current entrepreneur visas require the submission of a business plan as part of the visa process, counter to research that businesses are usually formed after immigration takes place.<sup>75</sup> A local immigration-focused academic reported that current policy (such as business plan evaluation) has resulted in attracting a large quantity of locally-focused small businesses, rather than global high growth startups with high value to the New Zealand economy.

If high-tech entrepreneurs do not want to be tied to a specific business plan, New Zealand's barriers to entry for residency are comparatively high via the investor visas (\$1.5 million up to \$10 million). From a high-tech perspective, the amount of initial high-tech startup capital required has drastically reduced over the last decade. Serial entrepreneurs who qualify for this level of investment in New Zealand are outliers, such as James Cameron and Kim Dotcom. By April 2013, only 148 applicants had been approved for the lower Investor 2 category of \$1.5 million.<sup>76</sup> Neither category targets entrepreneurship, but this is a popular category for those who do not fit the discussed point system. The top category does not require any business experience to gain entry, and the lower category accepts investment in government bonds.

David Cooper, immigration consultant and director of Malcolm Pacific, says, *"From an economic point*

<sup>75</sup> <http://www.inc.com/magazine/19890101/5491.html/2>

<sup>76</sup> <http://queencitylaw.co.nz/2013/04/investor-immigration-to-nz/>

of view, we want these people to come here to contribute.”<sup>77</sup> New Zealand’s entrepreneurial category could focus on local contribution, such as mentorship or providing startup capital to local firms.

Several high net worth individuals were interviewed for this report who had recently interacted with New Zealand immigration and attested to the fact that immigration policy has not worked as planned for them. In one example, the immigration process for two individuals from the United States cost between \$60,000-\$80,000, excluding preparation time which was the most frustrating element. In two other cases, one application was initially declined, and another’s was delayed four months due to their country of origin which was described as a “nightmare” and “time consuming”. These immigration applications are from individuals who could have a high impact on New Zealand’s future economy, yet they report that the current system creates unnecessary roadblocks for them to enter, invest and start businesses or participate. As an example, the following feedback was received from an international serial entrepreneur.

*Currently [New Zealand] immigration evaluates technology startups similarly to traditional businesses, while they are quite different categories. This is seen in pressures to start generating revenue, to employ x number of people (full-time), etc. [For] the entrepreneur visa, the majority of the value of the entrepreneur is determined by his/her success in building a company (in a traditional way), not the overall value that entrepreneur can add to the whole eco-system (e.g. mentoring, investing, attracting other talent, thought leadership, etc.). I can understand the motivation to bring only those who are serious about contributing to NZ economy, but more flexibility in the way such contributions are evaluated can be helpful.*

*Another idea [for immigration] is to possibly have someone at INZ dedicated to advise/support entrepreneurs who want to move to NZ, figure out options etc. Lawyer fees are ridiculously high, and [I’m] not sure every entrepreneur can afford to do that if he/she wants to come here. Ideally [the advisor would be] someone who has spent time in the start-up/entrepreneurial space. This person could [advise] INZ on entrepreneur-friendly immigration laws as well.*

Canada in 2013 launched a new programme which offers permanent residency for high-tech entrepreneurs upon a local angel investment of C\$75,000 in their startup, relying on the market to pick individual winners. The programme does not require the venture to succeed.

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<sup>77</sup> <http://www.stuff.co.nz/business/industries/9223975/Surge-in-rich-gaining-NZ-residency>

## Grants

As Canada has used the capital markets as a proxy for high-tech startup visas, a similar mechanism could be employed for grants. In New Zealand, the documentation for the recently-announced pre-incubation grants states the selection process requires a business plan, which implies it will be used within some type of selection mechanism. Grants for innovation are similar to entrepreneurial immigration policy because both currently involve the government picking individual winners in high-tech startups, which has proven incredibly difficult for even the world's best incubators.

Only 5% of Israel's exits were hatched in incubators despite Israel's renowned incubator programme which launched over thirteen hundred startups and invested around US\$500 million.

The total value of Y Combinator companies, of which 306 have valuations, is currently US\$13.7 billion.<sup>78</sup> The Y Combinator programme has a 3% acceptance rate<sup>79</sup> which results in about 18,800 applications received. Almost three-quarters of value comes from just two startups, Dropbox and Airbnb.<sup>80</sup>

In recognition of the difficulty in picking individual winners, and the relative importance entrepreneurs have to high-tech business success, Y Combinator has led the way by evolving away from idea-based evaluations. Paul Graham discusses the counterintuitive nature of picking startup winners:

*The two most important things to understand about startup investing, as a business, are (1) that effectively all the returns are concentrated in a few big winners, and (2) that the best ideas look initially like bad ideas...To succeed in a domain that violates your intuitions, you need to be able to turn them off the way a pilot does when flying through clouds. You need to do what you know intellectually to be right, even though it feels wrong. It's a constant battle for us...if a good idea were obviously good, someone else would already have done it. So the most successful founders tend to work on ideas that few beside them realize are good. Which is not that far from a description of insanity, till you reach the point where you see results. The first time Peter Thiel spoke at YC he drew a Venn diagram that illustrates the situation perfectly. He drew two intersecting circles, one labelled "seems like a bad idea" and the other "is a good idea." The intersection is the sweet spot for startups...The best we can hope for is that when we interview a group and find ourselves thinking "they seem like good founders, but what*

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<sup>78</sup> <http://techcrunch.com/2013/10/25/y-combinator-13-7b-valuation/>

<sup>79</sup> <http://techcrunch.com/2011/08/23/y-combinator-demo-day-the-ultimate-roundup/>

<sup>80</sup> <http://www.paulgraham.com/swan.html>

*are investors going to think of this crazy idea?" we'll continue to be able to say "who cares what investors think?" That's what we thought about Airbnb, and if we want to fund more Airbnbs we have to stay good at thinking it.*

## 2. Increase access to engineering teams for high-tech startups

In the 2013 Global Entrepreneurship Week Policy Survey, amongst the thirteen questions asked to New Zealand entrepreneurs and policy makers, respondents ranked "access to talent for startups and growing companies" the lowest.<sup>81</sup>

Victoria Ransom believes the key to attracting serial entrepreneurs to live in New Zealand is access to technical talent.

*If the technical talent is there, perhaps some serial entrepreneurs could be enticed to move to NZ [from Silicon Valley]. I strongly believe that NZ should be providing highly favourable immigration options to those with technical degrees or those who want to get technical degrees. Growing the base of software engineers and others in NZ is going to take some time if the focus is only on the local population. I think a much faster way to do this is to encourage smart talent from other countries (especially developing countries). As you mention, NZ is a highly desirable place to live so with the right incentives, I think it should be possible to attract good talent. I feel the shortage of tech talent is probably greater than the shortage of leadership/ entrepreneurial talent - so if the technical base is there I think this will help greatly to foster both local entrepreneurs and encourage foreign entrepreneurs.*

Prue Cruickshank's local research also highlights New Zealand's talent shortage.

*Creating an appropriate pool of engineering talent - currently inadequate - could import through skilled immigration - which may lead to future entrepreneurial spin offs if involved in a cluster development. Many talented New Zealanders complete their formal education then travel to get global experience. Some return but many don't, reducing the talent available. Recruiting appropriate talent was a significant obstacle to the immigrant entrepreneurs I researched.*

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<sup>81</sup> Global Entrepreneurship Week Policy Survey, GEW, November 2013.

A number of the serial entrepreneurs interviewed report that when they tried to hire employees already within New Zealand, including from universities, a significant portion of the engineers had an “employee mentality” rather than a “founder mentality”. They preferred to work for larger companies with a lower risk profile and a regular salary, and did not have the entrepreneurial tendencies required to be an early bootstrapped startup employee which sometimes meant irregular hours and wages.

Developing world-class entrepreneurial technical capability through institutions relies on the institution’s reputation to attract sufficient quality and quantity of talent. Entrepreneurial engineering students, attracted by Stanford, MIT and even the Israeli Defense Force’s high-tech divisions have been critical success factors of local startup ecosystems. This is discussed further in the case studies. The concentration of world-class talent is important because it can create self-sustaining growth.

*Several scholars [Jacobs, Lucas, Glaeser, Florida] demonstrated that places with higher concentrations of human capital grow faster and are able to attract more highly educated people. The clustering of talented people is very important for the economic development of a region.<sup>82</sup>*

Paul Graham agrees,

*Smart people will go wherever other smart people are. And in particular, to great universities. Within the US, there are no technology hubs without first-rate universities-- or at least, first-rate computer science departments. So if you want to make a Silicon Valley, you not only need a university, but one of the top handful in the world... drawing the best people from thousands of miles away. And that means it has to stand up to existing magnets like MIT and Stanford. This sounds hard. Actually it might be easy. My professor friends, when they're deciding where they'd like to work, consider one thing above all: the quality of the other faculty. What attracts professors is good colleagues. So if you managed to recruit, en masse, a significant number of the best young researchers, you could create a first-rate university from nothing overnight.<sup>83</sup>*

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<sup>82</sup> <http://www.martinprosperity.org/media/pdfs/Evaluating-Higher-Education-using-3Ts-CSedini.pdf>

<sup>83</sup> <http://www.paulgraham.com/siliconvalley.html>

Long-term, Ransom recommends a number of ways (including increased financial aid) that the New Zealand education system could attract the volume and quality of engineers to a growing industry:

- *Friendlier immigration policies for those wishing to study computer science or those with technical degrees*
- *lots of scholarships (for locals and foreigners) for those studying technical fields*
- *interest-free loans for those studying technical fields*
- *low or no fees for those studying technical fields (and who exceed a certain performance threshold)*
- *reaching kids early in their schooling to help extoll the value of technical fields (I remember the impact the 'girls can do anything' campaign had when I was a kid....something like this but aimed at the STEM [science, technology, engineering, mathematics] fields)*
- *postponement of student loan interest payments for those starting their own company*
- *incubator/office-share facilities that are subsidized*

The use of scholarships and education to attract both engineers and entrepreneurs is well supported by evidence:

*According to Wadhwa et al (2007), 52.3% of immigrant firm founders came to the United States initially to study at an American university, 39.8% entered the country because of a job opportunity, 5.5% came for family reasons, and only 1.5% came to start a business. Hunt (2009) found immigrants who came to the United States as students are more likely to innovate than immigrants, with a similar level of education, who gained their credentials abroad....when it comes to encouraging skilled migration, it is not sufficient to simply attract foreign students. They must also be able to stay in the host country after finishing their studies and find work. According to the OECD 2008 Migration Outlook only about 15 to 20% of international students stay on after finishing their studies. The quarantine restrictions stipulated that foreign students had to leave the host country for a certain number of years immediately after finishing their studies.*

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<sup>84</sup> [www.oecd.org/cfe/smes/45068866.pdf](http://www.oecd.org/cfe/smes/45068866.pdf)

The OECD Migration Outlook study demonstrates how a successful startup ecosystem policy requires a collaborative, integrated strategy across diverse areas. A study on Canadian universities reached a similar conclusion:

*I found that people who chose to attend a Master in Business Administration (MBA) selected the city where they would like to live in before evaluating the ranking of the MBA schools. Then, if in that particular city an MBA programme was present, they started to look at the quality of the school ...the production of knowledge, graduates and opportunities by the colleges and universities is not sufficient if it is not linked to the broader presence of an innovative, cultural, diverse and accessible environment in the metropolitan area. Therefore, institutions of higher education can constitute a good starting point and reciprocally influence the urban environment in which they are located.<sup>85</sup>*

### 3. Create preferential procurement opportunities for high-tech startups

When the DLD Tel Aviv 2013 conference panel, “Accelerators, Hubs, Shared spaces, Nurseries - engines for innovation”, were asked by an audience member for the critical success factor in incubators the unanimous response was industry pilot programmes and government procurement.

Strategic partnerships, especially government, allow startups to trial new innovations with real customers. For example, this might include a corporate partner offering some website real estate on a percentage of its traffic.

A report prepared by Economics New Zealand Ltd in November 2011<sup>86</sup> reported the general benefits of local IT procurement, with findings including:

- *The local ICT sector, with further support, has good prospects of being a successful ‘cluster’ [as was identified as far back as 20 years ago].*
- *The government, with a \$2 billion annual spend, can play a key role in the industry’s development. [note: outside Free Trade Agreements]*
- *Local IT companies are cost effective, with a 25-35% cost advantage over Australian companies and larger cost advantages compared to the US or UK.*

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<sup>85</sup> <http://www.martinprosperity.org/media/pdfs/Evaluating-Higher-Education-using-3Ts-CSedini.pdf>

<sup>86</sup> <http://nzrise.org.nz/assets/Uploads/Catalyst-2.0.pdf>

- *The multiplier and tax revenue effects of local procurement substantially reduce the net cost to the government of local contracts. As an example, the net cost of a \$115k (GST inclusive) contract reduces to around \$67k.*
- *Local suppliers have untapped export potential and can also reduce our import bills. We already spend over half a billion dollars a year on imports of computing services, and another \$235 million on computing royalties and licence fees.*

Three international examples of startup-friendly procurement:

- The US Small Business Administration launched RFP-EZ in January 2013 to make it easier for startups to discover and compete for opportunities and for contracting officers to create statements of work. The best part is that RFP-EZ is built entirely as an open source platform. The source code is available for free on GitHub for developers and governments who are looking to build an online procurement marketplace.
- In 2013 the NSW Department of Transport had PwC conduct an open Innovation process ('appHothouse') to select a number of startups to develop real time bus and rail mobile applications for consumers. This accelerated process allowed startups and developers access to public sector IT roles. In under 6 months, 6 real time transport applications were released and downloaded more than 1 million times.<sup>87</sup>
- Canada created a procurement program called the Build in Canada Innovation Program (BCIP) which *helps companies bridge the pre-commercialisation gap by procuring and testing late stage innovative goods and services within the federal government before taking them to market by:*
  - *Awarding contracts to entrepreneurs with pre-commercial innovations through an open, transparent, competitive and fair procurement process.*
  - *Testing and providing feedback to these entrepreneurs on the performance of their goods or services.*
  - *Providing innovators with the opportunity to enter the marketplace with a successful application of their new goods and services.*
  - *Providing information on how to do business with the Government of Canada.*<sup>88</sup>

<sup>87</sup> <http://www.digitalpulse.pwc.com.au/wp-content/uploads/2013/04/PwC-Google-The-startup-economy-2013.pdf>

<sup>88</sup> <https://buyandsell.gc.ca/initiatives-and-programs/build-in-canada-innovation-program-bcip/overview-of-bcip>



## 4. Create an export development grant scheme for high-tech startups

An export development grant could assist with travel-related expenses to reduce the distance between entrepreneurs and their customers and strategic partners. Despite living in a world of Skype and Hangout, nothing has yet replaced the benefit to entrepreneurs of meeting face-to-face. The Impact Group's research on failed R&D-performing companies found that *"a major contributor to failure and disappearance was related to customers and sales. Eight [of eighteen] companies had no sales and seven of them had no customer."*<sup>89</sup> Landing the first customer is a central tenet of startup methodology and living in New Zealand usually means that travel will be involved.

Next to legal fees, the cost of international flights is one of the largest expenses (usually) incurred by early startup entrepreneurs living in remote locations such as Israel and New Zealand. Even in Las Vegas, local startup founders interviewed noted that the low cost of flights, with close access to major West Coast markets, was one of the deciding factors in their choice of city (they also mentioned the lack of local income taxes). Travel costs are also a deciding factor for many New Zealand startups who choose to base their company overseas.

Australia offers the Export Market Development Grant (EMDG), its vehicle for providing travel subsidies to entrepreneurs. A description of the programme is as follows:

*The scheme is designed as an incentive to encourage Australian exporters to develop overseas markets for their goods and/or services... The scheme provides reimbursement of approximately 50% of the eligible expenditure incurred to a maximum of A\$150,000 per annum. Applicants must be Australian resident entities with a total annual turnover of less than A\$50 million and must have spent at least A\$20,000 in overseas marketing. Unlike other Government grants EMDG is a non-competitive programme which means if you are eligible and make an application you will receive a grant.*<sup>90</sup>

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<sup>89</sup> [http://itac.ca/uploads/news/Disappeared\\_Firms\\_Final\\_Report.pdf](http://itac.ca/uploads/news/Disappeared_Firms_Final_Report.pdf)

<sup>90</sup> <http://www.exportsolutions.com.au/export-grants-emdq/>

On 1st July 2013 the Australian EMDG system moved online (e-lodge) to streamline the process.<sup>91</sup>

*“Carving out a space in overseas markets can be a tough and expensive business. That’s why the Australian Government is happy to help exporters with some of the costs, and so help generate jobs and prosperity. The EMDG scheme is an important part of supporting exporters, which is why the Government has committed A\$125.4 million to it in the current Budget”<sup>92</sup> Kelvin Thomson, Australian Secretary for Trade*

## 5. Create low-admin stock options for startup employees

*“Gone are the days when the tech community can innovate and run their businesses in spite of government...Public policy has a direct and significant impact on startups and the investors who support them.” Ron Conway<sup>93</sup>*

As the tax system in New Zealand is a broad base low rate system, it is specifically not seeking to incentivize particular sectors. This is a disadvantage compared with other countries which have used liberal tax incentives as part of their startup strategies, including South Korea, Canada, Malaysia, and Singapore which is possibly the closest analog to New Zealand with no capital gains taxes.<sup>94</sup>

*Singapore has an affordable and efficient tax system that appeals to companies of all sizes. The maximum corporate tax rate in Singapore is a relatively low 17%. Most important for startups, there are no capital gains or dividend taxes in Singapore. This is a big attraction for those who are risking their sweat equity or capital in a new venture. In addition, the Singapore government offers several tax incentive schemes designed specifically for startups. For example, qualifying startups receive full tax holiday on certain portions of their taxable income for the first three years of incorporation.<sup>95</sup>*

<sup>91</sup> <http://www.austrade.gov.au/Export/Export-Grants/Publications/EMDG-Update>

<sup>92</sup> [http://www.kelvinthomson.com.au/Editor/assets/press\\_release\\_2013/130312%20export%20market%20development%20grants%20emdg.pdf](http://www.kelvinthomson.com.au/Editor/assets/press_release_2013/130312%20export%20market%20development%20grants%20emdg.pdf)

<sup>93</sup> <http://www.businessinsider.com.au/ron-conway-and-san-francisco-vote-in-proposition-e-gross-receipts-tax-2012-11>

<sup>94</sup> <http://www.guidemesingapore.com/taxation/topics/singapore-tax-rates>

<sup>95</sup> <http://www.foundersspace.com/business/seven-reasons-why-you-should-launch-your-startup-in-singapore/>

In 2013, Australia redirected its R&D Tax Incentive from major companies to help fund startups, including AUD\$350 million of new money for the Innovation Investment Fund.<sup>96</sup> The UK recently extended its Enterprise Investment Schemes (EIS) and (SEIS), including a Capital Gains Tax exemption and a 30% income tax relief on investments until the end of 2014.<sup>97</sup>

*“From conversations I’ve had, it sounds like one change that needs to be made is making it easier for startups to offer stock options to employees. This should help them to compete for talent, which is critical to success.”* Victoria Ransom

In *“Tax issues for startup and growth businesses: How to create more New Zealand success stories,”* Ian Fay, Tax Partner at Deloitte Private, details four current tax challenges in New Zealand, including share-based remuneration.<sup>98</sup>

*Startups.. are heavily dependent on engaged and highly skilled staff. However, early stage and high growth companies are often cash constrained meaning that offering the salaries necessary to attract such staff can be unaffordable... a potential solution is to introduce an element of share-based remuneration into the employment package...However the value of shares issued under such a scheme may be subject to tax on receipt by the employee. The company is required to obtain costly valuations and the employee is then required to pay tax on this non-cash income. This can create tension...as the employee has to find cash to fund the tax liability, which can be a significant disincentive for the employee.*

The solutions to this problem currently include providing equity to all employees, which incentivises non-key employees; complex voting/non-voting share structures and share/loan programmes. All of these solutions that are used to navigate the issue are expensive, unwieldy and require a high level of legal and entrepreneurial sophistication. Fay says, *“the primary solution might not be about tax free shares to employees, but rather a regime that only taxes real value when the value is realised (ie. doesn’t tax shares that are given to employees and then decrease in value).”*

*Some taxpayers may regard this as a poor outcome relative to current policy settings as if the tax on initial issue of shares can be dealt with, in many cases the large capital gain on exit can be completely tax free (with losses being non-deductible). The*

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<sup>96</sup> <http://www.itnews.com.au/News/333546.govt-cuts-big-business-rd-incentive-to-help-fund-startups.aspx>

<sup>97</sup> <http://chinwag.com/blogs/katejackson/tax-friendly-uk-startup-scheme-extended-2014>

<sup>98</sup> quoted with permission.

*compromise might be to tax the value of shares that are issued, but defer the tax (and add interest) until the shares are actually sold for cash, leaving the gain potentially tax free.*

Should tax deferral be implemented, further examination is required into a lower-cost alternative for early company valuations.

While stock options not prove a critical issue for local employees, they can influence success rates in attracting highly skilled immigrants who are accustomed to options in overseas markets.

# Conclusion

*The exciting thing is, all you need are the people.*

Paul Graham

When it comes to innovation, New Zealand certainly has the ability to punch above its weight and, according to international investors, could be only years away from reaching its potential as a startup capital. A tech startup ecosystem can be born from all types of hothouses of innovation which build a high reputation for quality: a university like MIT or Stanford, or even an army like the Israeli Defense Force. The ecosystem gains traction when successful serial entrepreneurs reinvest their knowledge, capital and connections into the next generation; and this extended network creates a community. Serial entrepreneurs, the “problem-munching” apex predators<sup>99</sup><sup>100</sup> of the innovation ecosystem, are largely missing in New Zealand due to the immaturity of the local ecosystem (they take decades to develop) and brain drain to Silicon Valley and other startup ecosystems like Boulder, New York and London. An under-developed startup ecosystem means that innovation does not always bloom into commercial success.

Many countries have made the policy shift from approaching tech startups as early-stage corporations, to a focus on the entrepreneurs themselves. The evidence collected in this report from mature startup ecosystems, including entrepreneurs, suggests that this would work well in New Zealand. The recent Business Growth Agenda Progress Report 2013 outlines government successes in key segments. Free Range would like to support policy makers to improve conditions in the vital area of entrepreneurship and improve New Zealand’s GDP per capita.

With increasing competition, many countries are implementing aggressive strategies to attract and keep entrepreneurs. Serial entrepreneurs can be transplanted from overseas, and even small numbers of immigrants can speed up growth because of their asymmetric influence. New Zealand is blessed with world-class livability rankings and many entrepreneurs are already looking to live, study and/or work here. Policy makers can assist this process by removing the barriers identified in this report by entrepreneurs themselves: market-based grants and immigration evaluation; access to talent; encouraging procurement; lowering customer acquisition costs, and easier stock options.

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<sup>99</sup> [http://e360.yale.edu/feature/the\\_crucial\\_role\\_of\\_predators\\_a\\_new\\_perspective\\_on\\_ecology/2442/](http://e360.yale.edu/feature/the_crucial_role_of_predators_a_new_perspective_on_ecology/2442/)

<sup>100</sup> <http://gladwell.com/the-sure-thing/>

# Appendix: startup ecosystem case studies

## Tel Aviv

The city of Tel Aviv is ranked second in the Global Startup Ecosystem Index by Startup Genome.<sup>101</sup>

*The city is full of young adults walking around in flip flops...gabbing on their cell phones. Many have been out late the previous night at a party, or hanging out on the beach or at a friend's house. A number of them work strange hours or have a last-minute paper to write for their professors. These young adults probably have the same problems as people of their age anywhere else – thinking about the future, family, school, debt, dating. They may also have more worries than the average young adult, such as their yearly army reserve duty... and the constant threat of war... Tel Aviv strives to be of the same calibre as New York and London, with a large variety of food, activities, and cultures. The city's young people want to be modern and trendy. Young Israelis have flocked to Tel Aviv in search of a good time, pursuing studies and careers, and looking for a chance to get away from their parents.*<sup>102</sup>

With broad sandy beaches surrounded by soaring skyscrapers, Tel Aviv's geography is reminiscent of the Gold Coast of Australia, or California's Santa Monica/Venice Beach. The population is very young: 33% of its four hundred thousand residents are between the ages of 18-34 and there's a mobile phone penetration rate of 133%. It is also home to young businesses. More than five thousand startups are within city limits, which equates to around one startup per eighty citizens. The average US rate is one in four thousand. It boasts the highest number of technical engineers per capita in the world.<sup>103</sup> Most of the people you meet in Tel Aviv have friends or family working on startups. The internet economy contributes 6.4 percent of Israel's GDP.<sup>104</sup> (In New Zealand, agriculture is 6.4 percent of GDP.)<sup>105</sup>

According to research firm IVC, in the decade between 2003 and 2012, 772 Israeli startups were acquired for US\$41.6 billion, and the third quarter of 2013 saw 162 companies raise US\$660 million, the most since 2000.<sup>106</sup>

*"More high-tech millionaires have been created from [Unit] 8200 than from any business school in the country."*<sup>107</sup>

<sup>101</sup> <http://techcrunch.com/2012/11/20/startup-genome-ranks-the-worlds-top-startup-ecosystems-silicon-valley-tel-aviv-i-a-lead-the-way/>

<sup>102</sup> <http://www.chosenpeople.com/>

<sup>103</sup> <http://mashable.com/2013/09/17/tel-aviv-tech/>

<sup>104</sup> Google Blog

<sup>105</sup> <http://www.treasury.govt.nz/economy/overview/2013/nzefo-13.pdf>

<sup>106</sup> <http://www.forbes.com/sites/gilpress/2013/11/04/start-up-nation-news-israeli-startups-acquired-and-funded-in-october/>

<sup>107</sup> [http://www.upi.com/Business\\_News/Security-Industry/2013/09/09/Israels-secret-intel-unit-spawns-high-tech-tycoons/UPI-88481378741900/](http://www.upi.com/Business_News/Security-Industry/2013/09/09/Israels-secret-intel-unit-spawns-high-tech-tycoons/UPI-88481378741900/)

The cultural prominence of the IDF, famous for its improvisational and anti-hierarchical culture, has significantly influenced the local startup scene. Membership or alumni of certain sectors of the army (such as Unit 8200, IDF's tech intel unit)<sup>108</sup> has an equivalent reputation to an American Ivy League degree. Job ads may specifically request 8200 alumni.<sup>109</sup> Because of its creative culture, the IDF appears to provide Israel's young people with the tools to build successful startups.

*Soldiers work in small, highly motivated teams, with brutal hours and little sleep. The pressure to innovate is crushing - national survival is at stake. They must sell their ideas to their commanding officers, or swiftly dream up something else... 'Business is like war, only without the Geneva Convention'... The IDF has created special systems to identify the country's best and brightest, and to steer them into the most demanding areas of technological warfare and intelligence work... 'Some of the questions [in the tests] are not solvable. They are not meant to be solved. It's to differentiate between the very good and the extraordinarily good.'*<sup>110</sup>

While not particularly analogous to New Zealand, the IDF and their increased reliance on technology such as Unmanned Aerial Vehicles (UAVs) to replace manned combat fighters, combined with the influx of hundreds of thousands of highly-skilled Russian scientists in the 1990s, has helped local firms develop a specialization in deep technologies and cybersecurity which is now world-renowned. In August 2013, IBM acquired security startup Trusteer for US\$800 million and announced the establishment of a new IBM Cybersecurity software lab.<sup>111</sup>

Israel has shown that developing a global startup reputation is important not only for attracting startup entrepreneurs, but also international investors and corporates. Since IBM arrived in 1972, almost every major technology company in the world has overcome the potential politics and risks in Israel to have some form of subsidiary or presence, including Cisco, GE, Microsoft, Google, Apple, Oracle, SAP, EMC, Orange, Deutsche Telekom, HP, Facebook and eBay. Companies are reaching beyond basic R&D labs. Recently Google has launched 'Campus Tel Aviv', an event/community space and pre-accelerator programme. Countries are also getting involved, with the UK setting up the UK- Israel Tech Hub. Corporate executives appreciate visiting Tel Aviv because of the collegial, cooperative atmosphere amongst global firms.

Tel Aviv's startups are primarily clustered around one area in the city,<sup>112</sup> the historic Rothschild Boulevard, a wide tree-lined street filled with coffee and gelato shops, bankers, tourists, and hundreds of

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<sup>108</sup> Members of Unit 8200 created startups including Waze, NICE Systems and Check Point. See

<http://qz.com/142043/israel-is-on-track-to-have-the-highest-rate-of-ma-since-1994/>

<sup>109</sup> <http://www.businessinsider.com.au/best-tech-school-is-israels-unit-8200-2013-8>

<sup>110</sup> <http://iamthewitness.com/Israeli.Tech.Warfare.htm>

<sup>111</sup> <http://www.forbes.com/sites/gilpress/2013/11/04/start-up-nation-news-israeli-startups-acquired-and-funded-in-october/>

<sup>112</sup> Another smaller cluster exists in Herzliya

startups. Along with the increasing size of startup acquisitions, the attractiveness of Tel Aviv has caused local real estate prices and rents to skyrocket, particularly Rothschild Boulevard, which has gentrified since 2005 and become one of the city's most expensive streets. The paradox for bootstrapped startups in such an expensive area is solved by the grandparents of entrepreneurs, who purchased property along the Boulevard during an earlier generation of urban decay, and remain the charitable landlords of choice.

The startup ecosystem received one of its first major boosts in 1968, when the Office of the Chief Scientist was established to assist in commercializing R&D. This was followed in 1974 with the United States-Israel Binational Industrial Research and Development (BIRD) grants. BIRD's US\$250 million subsequent investments in 780 projects resulted in US\$8 billion of sales and taught Israeli tech companies about American markets. In 1987, the cancellation of the Lavi fighter-plane development project released thousands of engineers to startups.<sup>113</sup>

This was followed by the annual US\$20m Yozma fund, a “*critical missing component*” with government sharing the early risk while offering investors a disproportionate reward. This kick started the venture capital industry in the 1990s.<sup>114</sup> Despite its relatively small size, the program was effective due to favorable circumstances which included Israel's previous 24 years of R&D grants (whose objective was ‘promotion of innovative firms’). The grants led to a critical mass of high quality startups ready for venture capital. This strong base was assisted by exogenous factors including massive immigration (nearly one million Russians - many of them scientists) from the former Soviet Union, globalization of NASDAQ, the internet revolution, and the Oslo peace process which enhanced Israel's international standing.<sup>115 116</sup>

Despite Israel's renowned incubator programme, only 5% of Israel's exits were hatched in incubators from over thirteen hundred startups, and around US\$500 million of investment.<sup>117</sup> A critical element to the success of the Tel Aviv ecosystem is its serial entrepreneurs. The local startup bible, “Startup Nation”, reports there are “tens of thousands” across Israel. A portion of these have become angel investors and advisors to the next generation.

Israel's first startup founder was Uzia Galil, whose experience working for Motorola in the US inspired him to establish Israel's first startup. Currently the most influential and well-known entrepreneur is Yossi

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<sup>113</sup> <http://www.forbes.com/sites/danisenberg/2011/02/11/start-up-notions-where-israeli-entrepreneurship-really-came-from/>

<sup>114</sup> [Startup Nation](#)

<sup>115</sup> [http://www3.grips.ac.jp/~gist/en/events/document/gistseminar\\_52\\_1.pdf](http://www3.grips.ac.jp/~gist/en/events/document/gistseminar_52_1.pdf)

<sup>116</sup> [http://www3.grips.ac.jp/~gist/en/events/document/gistseminar\\_52\\_2.pdf](http://www3.grips.ac.jp/~gist/en/events/document/gistseminar_52_2.pdf)

<sup>117</sup> <http://www.digitalpulse.pwc.com.au/wp-content/uploads/2013/04/PwC-Google-The-startup-economy-2013.pdf>



Vardi, another of Israel's first startup founders and former air force and Ministry of Defense R&D veteran. He has since invested in over 80 startups,<sup>118</sup> including Mirabilis (ICQ) founded by his son Arik and three friends, which sold to AOL for US\$407 million in 1998.<sup>119</sup> "If there is an Internet bubble in Israel, then Yossi Vardi is the bubble," said Google's Sergey Brin, regarding Vardi's role in helping to rebuild Israel's tech sector after the crash of 2000.<sup>120</sup>

While New Zealand (268,680 km<sup>2</sup>) is much larger than Israel (20,770 km<sup>2</sup>, or about half the size of Canterbury) it is similar in a number of other ways: an isolated geography; over ten thousand kilometres from Silicon Valley; a comparatively small population size; facing adversity, and lacking resources. Before its transition to an Entrepreneurial High Tech Cluster (EHTC), Israel's main exports during the 1960s were oranges and textiles.<sup>121</sup>

This has forced successful startups in both nations to be resourceful and innovative (both share an innovative mentality) and both are required to have a global perspective from day one. The absence of many high-paying corporate opportunities outside technology means that risk-taking in the startup community is made attractive by the potential rewards.

Israel shares New Zealand's challenge of "brain drain", in their case to the United States.

This is exacerbated by startups in Israel tending to seek fast exits through acquisition, and then the company and its skilled entrepreneurs are moved to Silicon Valley. Yossi Vardi sees this as a particular intricacy of the Israeli ecosystem.

*We don't have a local market and many of the large US high-tech companies are coming to Israel and [acquiring] young startups. I think this is a good phenomenon, since trying to grow big from a remote place is much riskier than doing it from Silicon Valley. So this is a good way to mitigate the risk. Also, I believe the phenomenal success of the high-tech sector in Israel is due to the unique symbiosis between small, fast, nimble startups and established large companies. When startups are acquired they avoid the very risky endeavor of deploying their own 10-20 person sales teams. As a result of these rapid acquisitions, the economy benefits from the infusion of expansion capital, access to markets, strategic interests, management know-how and technical backup. The acquired entrepreneurs then go on to immediately build new companies. Intel invested in 64 startups in Israel and employs 8000 people. IBM*

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<sup>118</sup> Vardi said at DLD, "I myself have invested in 80 start-ups. Of these, 22 went through successful exits, but 27 of them closed down. Companies fail not because of competition, but because of poor execution."

<http://www.timesofisrael.com/start-up-oracle-yossi-wardi-and-his-not-so-smart-phone/>

<sup>119</sup> Vardi told reporters at DLD, "ICQ was my greatest success and I became a 'genius' when I sold it — but to tell you the truth, when I built it with my partners I had no idea what it would be good for."

<sup>120</sup> [Startup Nation](#) Page 187

<sup>121</sup> [http://www3.grips.ac.jp/~gist/en/events/document/gistseminar\\_52\\_1.pdf](http://www3.grips.ac.jp/~gist/en/events/document/gistseminar_52_1.pdf)

*purchased 11 companies. Cisco purchased 9, the list goes on and on. So smaller but faster, frequent exits serve this ecosystem very well.*<sup>122</sup>

## Silicon Valley

The cities of Palo Alto (Tesla, HP), Cupertino (Apple), Menlo Park (Facebook, Geron), Mountain View (Google, Intuit), Sunnyvale (Yahoo!) and the surrounding Santa Clara County region (south of the San Francisco Bay Area) are collectively described as “Silicon Valley”. It is another improvisational and anti-hierarchical culture and ranked first in the Global Startup Ecosystem Index by Startup Genome.<sup>123</sup>

Downtown Palo Alto is not only the launchpad of Silicon Valley, but also its lunch pad: cafes, restaurants and bars line the über-gentrified neighbourhood, which includes the original headquarters of Facebook, now filled by Palantir, another Peter Thiel investment. Palo Alto also contains Amazon’s A9 and the nondescript Palo Alto Internet eXchange (PAIX) building, part of the core infrastructure of the internet, home of Alta Vista, and where Facebook continues to route global network traffic between Asia and the US.<sup>124</sup> Steve Jobs chose to visit Apple’s original Palo Alto store, located further down the street, during product launches.

At the Caltrain end of Palo Alto’s University Avenue sits the sprawling Stanford campus, which began as a summer location for the Stanford family in the nineteenth century, and which locals joke is an investment company with a sideline in education.

If corporations created by Stanford alumni formed an independent nation, it would be the tenth largest economy in the world, with annual revenues of US\$2.7 trillion.<sup>125</sup>

What sets Stanford apart from many other universities (UCLA is just getting started) is its long history of encouraging its students, which include Google founders Sergey Brin and Larry Page, to create startups. This began in the 1940s when Stanford’s Dean of Engineering and Provost, Frederick Terman, assisted graduates William Hewlett and David Packard to create their eponymous firm. Stanford has recently formalized their StartX programme, and over 100 companies have already graduated.<sup>126</sup>

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<sup>122</sup> Startup Ecosystem Report, Startup Genome 2012

<sup>123</sup> Silicon Valley is home to one of the earliest incubators, started by Nolan Bushnell of Pong video game fame, in the early eighties.

<sup>124</sup> <http://www.datacenterknowledge.com/archives/2009/02/11/paix-a-key-hub-from-alta-vista-to-facebook/>

<sup>125</sup> <http://blogs.wsj.com/digits/2012/10/24/study-stanford-entrepreneur-companies-generate-2-7-trillion-in-revenue-annually/>

<sup>126</sup> <http://startups.fm/2013/09/06/stanford-university-becomes-like-a-vc-firm-for-student-startups.html>

The other founding platform for Silicon Valley has been its use by the United States Government as the NASA research base, which in turn attracted Lockheed Martin.

Bordering the north-west edge of the university is Sand Hill Road, home to many of the Valley's famous venture capital firms, beginning with Kleiner Perkins in 1972.

*A San Jose State survey found that across the nation, 4 of 5 new businesses fail. But, when backed by professional venture capital within 20 miles of this office, 4 of 5 new ventures succeed. Think of Silicon Valley as an incredibly effective system for getting people, projects and capital together.<sup>127</sup>*

John Doerr, Kleiner Perkins

As in Israel, successful entrepreneurs have over time become investors and started or joined investment firms, as Marc Andreessen did when he co-founded Andreessen Horowitz after he founded the early web browsers Mosaic and Netscape (acquired for US\$4.2 billion by AOL); Loudcloud/Opware (acquired by Hewlett-Packard for US\$1.6 billion), and Ning (acquired by Glam Media for US\$150 million). Portfolio holdings of Andreessen Horowitz include Twitter, Facebook, Foursquare, GitHub, Pinterest, Groupon, Twitter and Zynga.

Before starting Y Combinator, Paul Graham sold his first company Viaweb to Yahoo! for around US\$49 million, which became Yahoo! Stores. Y Combinator was originally based in Graham's alma mater town of Boston, and has since moved to Silicon Valley and consists of a three month incubation period<sup>128</sup> followed by Demo Day, when startups pitch to a room full of investors. Y Combinator operates with five or six partners and recently reached a quality bottleneck when they tried to process eighty-four startups in parallel. They solved this by reducing the number of startups and having each team pick a single lead partner for the ninety days.

Across from Starbucks at 165 University Avenue was the original location of the Medallion Rug Store (it has since moved up the street). It was owned by Amir Amidi (and now by his son Saeed, after his death in 2000). Amidi also owned an office building down the street and noticed their tenant exploding with staff and moving out for larger digs. It was Google. When the next tenant arrived, he learned from his previous experience and took equity to subsidise cheaper rent. That new company was Paypal. In 1999

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<sup>127</sup> <http://www.fastcompany.com/28223/john-doerrs-startup-manual>

<sup>128</sup> A three month incubation period only works in Silicon Valley. Outside this ecosystem requires more time to establish potential, agreed firms present at DLD 2013.

the Amidis launched a US\$2 million investment fund which became instrumental in the beginning of Y Combinator alumni, Dropbox. When the Dropbox founder arrived at the rug shop for the deal, he was sure it was a joke. "I was waiting for the candid cameras to show up."<sup>129</sup>

*"You get this feeling that you need to be out here."<sup>130</sup>*

Mark Zuckerberg, Facebook

Companies are not the only ones to move to Silicon Valley from all over the world, hoping for some of the local pixie dust to rub off, or at least some serendipity, there are also countries creating incubators, and it is working. Sweden and Norway have created tech incubators off University Avenue. The Norwegian Innovation House was opened with a virtual ribbon cutting on Twitter by Prince Haakon in 2011.<sup>131</sup> Dozens of Norwegian companies have already graduated from the space.

*Back in Norway we have a lot of attention for startups dealing with the oil and gas industry, but for companies dealing with tech it's a little bit more difficult to get funded through VCs [venture capitalists] and business angels.<sup>132</sup>*

Are Vindfallet, CEO Making View

## San Francisco

*Tech hubs are shifting to urban centres across the country, and as the Valley loses some of its momentum, it seems that its neighbour is moving swiftly to pick up the slack.<sup>133</sup>*

Headquartering nineteen of the country's twenty-four billion-dollar startups, San Francisco is becoming ground zero for internet startups. While related to Silicon Valley, it has begun to differentiate itself. In fact, in recent years the traditional Valley has been losing importance to San Francisco, home to the latest generation of startup companies (over seven hundred) including Twitter, Pinterest, Box, Bloom Energy, Uber and Github. With many of its startups such as Dropbox and Airbnb already there, even Y-Combinator recently opened a small satellite office near Union Square .

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<sup>129</sup> <http://www.forbes.com/global/2012/0409/companies-people-pejman-nozad-entrepreneur-capitalist-silicon-valley-cinderella.html>

Amadi has also started an incubator called Plug & Play Tech Centres (<http://plugandplaytechcenter.com/>)

<sup>130</sup> <http://techcrunch.com/2012/06/19/san-francisco-vs-silicon-valley-where-should-you-build-your-business/>

<sup>131</sup> [http://www.pcworld.idg.com.au/article/461372/silicon\\_valley\\_tech\\_incubator\\_hosts\\_norwegian\\_royals/](http://www.pcworld.idg.com.au/article/461372/silicon_valley_tech_incubator_hosts_norwegian_royals/)

<sup>132</sup> [http://www.pcworld.idg.com.au/article/461372/silicon\\_valley\\_tech\\_incubator\\_hosts\\_norwegian\\_royals/](http://www.pcworld.idg.com.au/article/461372/silicon_valley_tech_incubator_hosts_norwegian_royals/)

<sup>133</sup> <http://techcrunch.com/2012/06/19/san-francisco-vs-silicon-valley-where-should-you-build-your-business/>

*There's a growing trend of startups being founded in San Francisco, as younger tech workers are looking for more excitement after hours than might be found, in say, downtown Mountain View. Whereas a decade ago it was expected that companies like Twitter and Square want to be near Stanford and Sand Hill Road, newer startups are becoming comfortable with the idea of settling down in the city. And investors are coming to them.*<sup>134</sup>

*If you go to the corner of Sixth Street and Mission, you see venture capitalists who used to be on Sand Hill Road but have moved up to the city. The venture capitalists are coming up to the city because they realize that the startups don't want to schlep down to Sand Hill Road to pitch.*<sup>135</sup>

One of the reasons employees like to live in San Francisco is because it has the kind of personality Paul Graham discussed (as opposed to Silicon Valley, which Graham describes as like a huge parking lot). San Franciscans pay for the privilege, however, as the average rent of a San Francisco apartment is US\$3,096/month and it is now cheaper to buy than rent.<sup>136</sup>

San Francisco has a reputation for its great singles' culture, whereas by contrast Silicon Valley residents tend to be married with children in elementary or high school.

For Silicon Valley giants, the popularity of living in San Francisco with its younger employees means over fourteen thousand people need to take the one to two-and-a-half hour car trip twice a day. Alternatively, commuting to the Valley on public transport usually requires a Muni bus, Caltrain and possibly light rail as well, depending on the destination. Apple, eBay, EA, Yahoo, Google, Genentech and Facebook (plus NASA and Stanford) have attempted to solve the commuting problem by providing private unmarked Wi-Fied buses shuttling employees continuously up and down the 101 freeway. This also satisfies municipal requirements of reducing pollution and congestion. Shuttles have apparently begun to affect real estate prices, with real estate agents reporting that employees are picking locations to live based on the shuttle routes.<sup>137</sup>

The alternative option, companies moving to San Francisco, is difficult due to the lack of space and restriction of high-rise office construction in the downtown area since 1983.<sup>138</sup> Paradoxically, locals say San Francisco's original growth was due to cheaper office rents than Silicon Valley.

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<sup>134</sup> <http://techcrunch.com/2013/10/10/yc-sf/>

<sup>135</sup> <http://www.inc.com/eric-markowitz/why-san-francisco-is-so-start-up-friendly.html>

<sup>136</sup> [http://www.mercurynews.com/business/ci\\_24316730/bay-area-apartment-rent-increases-slows-report-says](http://www.mercurynews.com/business/ci_24316730/bay-area-apartment-rent-increases-slows-report-says)

<sup>137</sup> <http://www.theatlanticcities.com/commute/2012/12/are-silicon-valleys-employee-shuttles-bad-san-francisco/4266/>

<sup>138</sup> <http://www.nytimes.com/1987/12/05/us/for-san-francisco-cure-is-worse-than-high-rise-disease.html?pagewanted=all&src=pm>

San Francisco's scene started by being the haven for media startups (it is the headquarters of Dolby Labs), rather than infrastructure/hardware startups, and many of the newest startups in this vein have begun to cluster South of Market (SoMa), including Wired, Twitter, Yelp and Zynga. This is an area traditionally known for having "a person pointing a gun to your head when you leave [the] office at night"<sup>139</sup> but which are attractive due to significant tax breaks.

The SoMa area has traditionally been hardest hit during downturns, which are more regular in San Francisco as it seems to be more prone to bubbles than the Valley. New Zealand currently has its own foothold in the district, the Kiwi Landing Pad, an upstairs co-working space created by serial entrepreneurs John Holt and Sam Morgan in 2011.<sup>140</sup> Xero started there and now has a 25,000 square foot office downtown.

Mayor Ed Lee launched the TechSF Initiative in 2012 with a US\$5 million federal grant to help 're-skill' residents for high-tech jobs,<sup>141</sup> and has reduced tax for startups<sup>142</sup> through new startup-friendly tax incentive, Proposition E. This replaced payroll tax with a gross receipts tax that varies according to industry<sup>143</sup> to create a profit-focused regulatory environment rather than a jobs-focused one.

The Mayor's office also launched a San Francisco startup map<sup>144</sup> which currently shows the location of over seven hundred startups and one hundred investors. These initiatives come as the city is experiencing a 30% annual growth in technology jobs.

Note that between San Francisco and Silicon Valley the Biotech startups including Genentech can be found in a geographic nexus between the relevant universities: UC Berkeley, UCSF, and Stanford.

## Boston

The well-worn granite paving around the 18th century Boston home of Paul Revere on North Street was laid on a history of revolution, and startups seem like a natural fit in this environment.<sup>145</sup> Like Silicon Valley, the Boston startup community is made up of several cities, including Boston, Cambridge, Waltham (Route 128), and Hopkinton (Route 495).

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<sup>139</sup> [http://home.wangjianshuo.com/archives/20120722\\_startups\\_should\\_be\\_in\\_bad\\_areas\\_som.htm](http://home.wangjianshuo.com/archives/20120722_startups_should_be_in_bad_areas_som.htm)

<sup>140</sup> [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10912443](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10912443)

<sup>141</sup> <http://www.sfmayor.org/index.aspx?page=738>

<sup>142</sup> <http://www.inc.com/eric-markowitz/why-san-francisco-is-so-start-up-friendly.html>

<sup>143</sup> <http://www.businessinsider.com.au/ron-conway-and-san-francisco-vote-in-proposition-e-gross-receipts-tax-2012-11>

<sup>144</sup> <http://map.innovatesf.com/>

<sup>145</sup> Revere famously alerted the Lexington Minutemen about the approach of the British in 1775.

*Historically, when people talk about Boston, they talked about Route 128, which even has a sign on it that says, “America’s Technology Highway”. Today, however, much of the startup activity is in Cambridge and near downtown Boston. Even within Cambridge, however, you have different neighbourhoods (Kendall Square, Central Square, Harvard Square) and within Boston you have different neighbourhoods (Innovation District, Leather District, South End). Although these neighbourhoods are a walk or a short train ride apart, they have distinct superlocal characteristics that all contribute to the local characteristics of Boston.*<sup>146</sup>

Boston is ranked sixth in the global Startup Genome index. In the 1970s, Boston and Silicon Valley were equal, but Boston has slowly fallen behind the faster growing coasts (including New York City, San Francisco and Los Angeles). Boston is a mature ecosystem and home to a diverse range of startups, including TripAdvisor, iRobot, Kayak, and Zipcar. Its diversity is its strength, says Simeon Simeonov, Founder/CTO of Swoop.<sup>147</sup>

*Boston is #1 in biotech, #2 in high-tech and top 3 in medical devices, energy technology, materials & environmental science, robotics, etc. This is fueled by the large number of top universities and by the diversified New England economy...Boston’s biggest opportunity is to leverage its diversity and produce new category-defining companies. I expect many of these to be at the intersection of two or more existing categories. Boston’s biggest challenge is increasing the breadth and depth of its talent pool in the face of (1) competition from the Bay Area, NYC and the foreign countries where many of Boston’s top students come from and (2), specifically in high-tech, the fact that many Boston companies are acquired by Bay Area companies, which puts a glass ceiling on local talent development.*

Cambridge is the home of Massachusetts Institute of Technology, founded in 1861 by William Barton Rogers, and a university with a long history of embracing industry, and an equivalent influence to Stanford on the local entrepreneurial community. A Kauffman report found 25,800 currently active companies were founded by MIT alumni that employ about 3.3 million people and generate annual world revenues of US\$2 trillion, making it the equivalent of the eleventh-largest economy in the world.<sup>148</sup> Like Stanford, MIT made it a local norm to be an entrepreneur, beginning around the post-World War II period.

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<sup>146</sup> Feld, B. *Startup Communities* 2012, (John Wiley & Sons, Inc, New Jersey), 67

<sup>147</sup> Startup Genome project

<sup>148</sup> <http://web.mit.edu/newsoffice/images/kauffman.pdf>

*As a result of MIT, Massachusetts has for many years been dramatically “importing” company founders. The estimated 6,900 MIT alumni firms headquartered in Massachusetts generate worldwide sales of about US\$164 billion. More than 38 percent of the software, biotech and electronics companies founded by MIT graduates are located in Massachusetts, while less than 10 percent of arriving MIT freshmen are from the state....About 30 percent of MIT’s foreign students form companies, of which at least half are located in the United States. Those estimated 2,340 firms located in the US but formed by MIT foreign-student alumni employ about 101,500 people.*<sup>149</sup>

Kauffman found that MIT’s “single-firm-only” entrepreneurs were older, with a larger lag between graduation and founding their company. Serial entrepreneurs were likely to enter entrepreneurship much sooner, “which likely reflects their strong entrepreneurial tendencies while also giving them more time to start subsequent firms.”<sup>150</sup>

One of the results of so many successful alumni is evident on campus, gifting new buildings for MIT seems to have become part of the culture.

Down the street is home to one of the world’s most reputable mentoring systems, which began in 2000 for MIT students. It was conceived by two former students and entrepreneurs, and is based on the following two concepts:<sup>151</sup>

- A fledgling venture is more likely to thrive when an idea, good business planning, and an entrepreneur are matched with proven skills and experience.
- Successful entrepreneurs can be motivated to ‘give back’ as mentors, and finding the experience compelling and rewarding.

MIT has identified some critical elements to their success:

- Unlimited timeframes.<sup>152</sup>
- Focus on professional education, learning by doing.
- Leverage of MIT’s education mission, reputation and resources.

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<sup>149</sup> <http://web.mit.edu/newsoffice/images/kauffman.pdf>

<sup>150</sup> <http://web.mit.edu/newsoffice/images/kauffman.pdf>

<sup>151</sup> [http://wiki.epfl.ch/a3-angels/documents/reunions/a3angels10-sherwin\\_greenblatt-mit%20vms-epfl.pdf](http://wiki.epfl.ch/a3-angels/documents/reunions/a3angels10-sherwin_greenblatt-mit%20vms-epfl.pdf)

<sup>152</sup> During DLD Tel Aviv, tech accelerators operating outside Silicon Valley agreed that a minimum of four months was necessary to properly evaluate initial potential.



- High mentor quality through personal referral and rigorous screening; becoming an MIT mentor is considered prestigious.
- Strict ethical guidelines for mentors and entrepreneurs that create an unbiased process and avoids conflicts of interest.
- Team mentoring (with the voluntary appointment of a lead mentor) builds a culture of quality, collegiality and trust.

Tied to entrepreneurship at MIT is a huge array of clubs. Of note is the US\$100K Business Plan Competition, created in 1990 by the MIT Entrepreneur's Club and the MIT Sloan School's New Ventures Association. Originally started as a US\$10,000 competition in 1990, a number of alumni gifts have allowed it to continue to grow. Now in its 24th year, the competition's winners have received more than US\$700 million in venture capital funding and at least twenty-four firms have been acquired for more than US\$3 billion.<sup>153</sup>

The Business Plan competition offered the inspiration for MassChallenge, a four-month startup accelerator created by John Harthorne, winner of the 2007 MIT \$100K competition, and co-founder Akhil Nigam:

*We wanted to help return entrepreneurs to the center of the equation and provide them with all the resources needed to catalyze their growth. Our competitive format creates an urgency allowing us to identify and aggregate the highest-impact teams and resources.*<sup>154</sup>

The accelerator, based in a huge open-plan floor of a south Boston skyscraper, offers US\$1 million in equity-free cash awards to 125 startups per season. Alumni have already collectively raised over US\$360 million in outside funding, generated nearly US\$100 million in revenue and created about 3,000 jobs. In late 2012, MassChallenge launched in Tel Aviv.

## Las Vegas

If you are an entrepreneur and the West Coast startup scenes feel too self-indulgent, then you may find yourself rebelling to Las Vegas,<sup>155</sup> the Wild West of startup ecosystems. There are no income taxes, the weather has one channel, sunny, and the rent is extraordinarily cheap. The price of an apartment in San

<sup>153</sup> <http://web.mit.edu/newsoffice/images/kauffman.pdf>

<sup>154</sup> <http://www.innovationexcellence.com/blog/2013/10/31/masschallenge-view-from-largest-global-accelerator/>

<sup>155</sup> It is also naturally the location of a gaming startup cluster.

Francisco will rent you a hangar-sized warehouse in downtown Las Vegas.

Downtown Las Vegas can be found once you get past the strip (beyond the Stratosphere) which is difficult, since the strip is all that most people know of Las Vegas. Hit hard by recession, it is known as “*the last refuge of the down-and-out... the poor scum who beg for change... winos and crackheads and lunatics.*”<sup>156</sup>

This is the area in which serial entrepreneur and Zappos.com CEO Tony Hsieh chose to create a new startup community. Las Vegas is currently unranked in the Global Startup Ecosystem Index.

*[Zappos was] located in a sprawling suburban office park; the nearest bar where employees can collide after work is almost a half-mile away, next to a big highway. When it came time to think about a new home for the company, Hsieh decided the best way to create those [serendipitous] interactions is to drop his employees in the middle of a vibrant downtown and let the surroundings facilitate the interaction. "When you're in a city, the bar or the restaurant becomes an extended conference room," he says. Since downtown Vegas didn't really have that yet, Hsieh says, "The idea went from 'let's build a campus' to 'let's build a city.'”<sup>157</sup>*

Dubbed the Downtown Project (DTP), Hsieh invested US\$350 million to fulfill his revitalisation plans.<sup>158</sup> Hsieh would spend \$100 million on land purchases, \$100 million on high-rise apartment complex construction, \$50 million on a school system, \$50 million on small and local businesses like bakeries, yoga studios, restaurants and coffee shops; and \$50 million on startups at US\$100,000 or so apiece.<sup>159</sup> He began by moving his Zappos.com headquarters into the former Town Hall at a time when the area was “infested with crime”<sup>160</sup> and started to buy up the surrounding area. The early community was centred around a regular meetup of local entrepreneurs at a downtown co-working space, which housed a shared library of technology and startup books.

Hsieh seems to have followed the rule book of community building, holding hackfests, events and conferences, and offering to invest in startups which move to Las Vegas. Free dinners are provided once a week at a local restaurant, and CEOs of invested companies are encouraged to meet regularly.

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<sup>156</sup> <http://www.desertcompanion.com/article.cfm?ArticleID=605>

<sup>157</sup> <http://tech.fortune.cnn.com/2012/01/23/tony-hsieh-las-vegas-zappos/>

<sup>158</sup> <http://axiometrics.com/blog/index.php/the-downtown-las-vegas-project-a-good-fit-for-the-community/>

<sup>159</sup> <http://tech.fortune.cnn.com/2012/01/23/tony-hsieh-las-vegas-zappos/>

<sup>160</sup> <http://www.lasvegassun.com/news/2013/jun/20/joe-downtown-not-everyone-embracing-downtown-proje/>

A new 21,000 square foot co-working space for startups is in the works, similar to General Assembly in New York, and Hsieh has made a US\$1.5 million deal with Teach for America to bring 1,000 core members and alumni to live and teach in the area<sup>161</sup>. He has been purchasing Burning Man festival art for the neighborhood.

*None of the group has real estate or urban planning experience. They use the recent Edward Glaeser book *Triumph of the City* as a bible and have consulted with Richard Florida's Creative Class Group, but they do most of the brainstorming themselves: a big beige wall in Hsieh's apartment has a collection of coloured post-it notes listing the ingredients that they think go into the perfect neighbourhood ("jazz fest," "beer garden," "wine bar/wine and cheese store", "dog park," "hybrid e-school (eg Khan Academy)," "Yoga!" are some.)...*

*Ask them if they've heard of New Urbanism or urban infilling, the wonkier, established versions of what they're trying to do, and they shrug. Hsieh says there's a benefit to their outsider perspective. "We don't have some top-down idea of how this should be done," he says. Ware adds that there's a benefit to coming into something with no preexisting knowledge. "We ask the dumb questions."<sup>162</sup>*

A Fashion Tech incubator has been set up for around fifteen designers opposite Zappos HQ, and a 3D/Maker Incubator is in the process of being developed a few blocks away.

Hsieh has created shipping container business rentals, with three month leases, providing the opportunity for small business entrepreneurs to try out new concepts.

Hsieh's coordinators manage to collect some of the many entrepreneurs who flow through Las Vegas to be mentors to his young companies, however they only stay for a few days.

To the surprise of the Downtown team, some of these invested startups have spontaneously created their own emergent community a few blocks away in cheap housing, and have started to share each others' working and living spaces.

*The musician and cultural critic Brian Eno once coined the term 'scenius' to describe the burst of collective creative energy that occurs when you put the right people together in the right place at the right time...Zappos CEO Tony Hsieh has been*

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<sup>161</sup> <http://tech.fortune.cnn.com/2012/01/23/tony-hsieh-las-vegas-zappos/>

<sup>162</sup> <http://tech.fortune.cnn.com/2012/01/23/tony-hsieh-las-vegas-zappos/>

*cultivating scenius here in Las Vegas...if you take a walk down East Fremont Street, you'll already see the impact of his efforts: new businesses, new co-working and hacker spaces with lots of power outlets and high-speed Net access ... and a whole lot of new, hip, young, super-bright nerds, their startups fueled by energy drinks and unbounded enthusiasm.*

*If you're the kind of person who gauges urban progress purely by the financial bottom line, this influx of geeky new blood is an unqualified success. Developers can't build the foodie joints and artisanal cocktail boutiques fast enough. After decades of single-industry cultural stagnation, Las Vegas is finally seeing the rise of Richard Florida's mythical creative class, right smack in the middle of an area that has long been one of the most economically depressed in the city.<sup>163</sup>*

However, in the eighteen months since he began, Hsieh has found himself in the middle of a public relations battle between those who see the area's gentrification as positive and talk about Hsieh with almost-religious fervour and gratitude; and those like Josh Ellis, who is upset with the methods employed.

*As we build this bright new future for Downtown, we have to ensure that it benefits everyone, prosperous and poor alike, those who are arriving and those who have always been here ... especially those who have nowhere else to go.<sup>164</sup>*

Ellis, CTO of a Las Vegas startup who is authoring a book about technology and innovation in sub-Saharan Africa, says the methods included trying to assuage his opinion with mediation;<sup>165</sup> but he finds the community being built as soulless, one-dimensional, and more of the same from San Francisco.

*Technologists used to work on big problems -- sending humans to the moon, ending poverty, ending disease, and they didn't do it because it was gonna get them a big, badass IPO...They did it because technology is about improving the human condition.*

<sup>166</sup>

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<sup>163</sup> <http://www.desertcompanion.com/article.cfm?ArticleID=605>

<sup>164</sup> <http://www.desertcompanion.com/article.cfm?ArticleID=605>

<sup>165</sup> <http://www.lasvegassun.com/news/2013/jun/20/joe-downtown-not-everyone-embracing-downtown-proje/>

<sup>166</sup> <http://www.lasvegasweekly.com/column/joe-downtown/2013/mar/27/joe-downtown-downtown-too-insular-its-own-good/>

Ellis sees a problem in the way Hsieh's people removed the poor from their hotel residences, apparently with only a few days' notice due to a loophole where they lacked long-term rental agreements. While spokespersons say the evictions were a result of miscommunication, according to Ellis the creation of this new community has not included engagement with the existing one.

Tony Hsieh's Las Vegas project highlights how entrepreneurship, community and physical environment are all intricately linked.

The Downtown Project's lack of accountability appears to indicate that problems snowball when developments reach municipal proportions. "*Nobody seems to be thinking very hard about the consequences of tearing down inexpensive housing or low-cost businesses in favour of hip apartments or trendy boulangeries. Or if they are, they aren't really talking about it, at least in public,*" says Ellis.

*A lot of the tech crowd who've been moving into Downtown have publicly likened the experience to colonizing a new planet or a new frontier: a blank canvas to paint a bright future upon. But the unpleasant reality is that Downtown isn't a blank canvas....So far, the strategy of the new Downtown tech elite has largely been to entirely ignore these existing inhabitants, or to push them further down Fremont or the Strip by demolishing their flophouses and quietly encouraging Metro and the casinos' security to keep 'em moving. And why not? After all, nothing kills the buzz of being a venture-funded master of the startup universe quite like looking out the window of The Beat coffee shop and seeing an aging, shirtless crackhead on the other side of the glass, waving his arms and shouting nonsensical profanity at the empty air.<sup>167</sup>*

Another example of the effect of Hsieh's strategy are former business owners, the Yono brothers:

*Their story was the epitome of the American dream. Their former store, located in the 600 block of east Fremont Street, was acquired by their late father, an immigrant Iraqi, in the 1980s. Steve and Manny Yono cut their entrepreneurial teeth in the family business and later introduced their children to it....They sought out a five-year lease to help upgrade their store, but their landlord gave them only four months. The lease was then handed over to the Downtown Project.<sup>168</sup>*

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<sup>167</sup> <http://www.desertcompanion.com/article.cfm?ArticleID=605>

<sup>168</sup> <http://axiometrics.com/blog/index.php/the-downtown-las-vegas-project-a-good-fit-for-the-community/>

Some other challenges currently being faced by the Downtown Project:

- a macro problem of branding the city: Las Vegas is not perceived as a startup hub, which makes it difficult to get startups to think about moving, and requires them to be flown in before they are convinced.
- a lack of available local developers.
- building a school and catering for families in the downtown Las Vegas environment.
- a few locals joke that Hsieh's project is a little like "drinking the Kool-Aid" and is "trying too hard" with Zappos employees in a forced "I owe my soul to the company store" economy<sup>169</sup> with matching T-shirts. Hsieh says the matching T-shirts were likely part of a Corporate Challenge event.<sup>170</sup>
- the struggle to retain startups when they receive their Series A funding - the first success has already returned to San Francisco.
- the entourage effect, a perception that Hsieh's community is a desert mirage, unsustainable once the money dries up. ("People are talking about what if Hsieh gets bored and decides he wants to, instead, save a village in Thailand," the developer said. "We look at it and admire what he's doing. But if this thing doesn't catch, he may be doing more damage to downtown than he knows.")<sup>171</sup>

In a talk to downtown technology startup entrepreneurs, for which Ellis received a standing ovation, he urged them to be inclusive of the original community in their startups, "*Talk to them ... then ... use your amazing minds, your resources, your power to make their lives better.*"

The challenges of "haves" and "have nots" faced by Tony Hsieh are not restricted to Las Vegas. Even Tel Aviv has been the location of protests against the growing disparity in a culture which began as an "example of intimate equality [and] today has one of the largest gaps between rich and poor in the industrialised world." In August, 2011, a tent-city of protesters complained about the concentration of wealth in Israel. "*What is keeping people on the streets is the question that if we are all having a hard time and we are all working and paying taxes, who is making the profits?*", reports the New York Times.

<sup>172</sup>

Inclusiveness is one of Techstars co-founder and serial entrepreneur Brad Feld's tenets, someone who has personal experience building a startup community in Boulder, Colorado, which has since become the highest density of startups in the United States. Feld provides four explanations in his book "Startup

<sup>169</sup> <http://tech.fortune.cnn.com/2012/01/23/tony-hsieh-las-vegas-zappos/>

<sup>170</sup> <http://www.reviewjournal.com/news/las-vegas/historic-huntridge-plan-taps-hopes-and-fears-downtown>

<sup>171</sup> <http://www.lasvegassun.com/news/2013/jun/20/joe-downtown-not-everyone-embracing-downtown-proje/>

<sup>172</sup> <http://www.nytimes.com/2011/08/12/world/middleeast/12israel.html?pagewanted=all>

Communities” for the science behind them, and how to make them work with his “Boulder Thesis”.<sup>173</sup>

1. External or agglomeration economies: Co-location of startups benefit from “external economies of scale” such as infrastructure, specialized legal and accounting services, and labour pools. This geographic concentration has an advantage due to network effects, which has exponential value. The addition of a single entrepreneur into an ecosystem can provide value for all of the existing entrepreneurs. *“Smart people attract smart people. Independent people attract other independent people. Progressive people tend to attractive other progressive people. So the entrepreneurial lifestyle tends to attract other entrepreneurs. And I've seen that over 15 years in a very reinforced way.”*<sup>174</sup>
2. Horizontal networks: A community with information sharing across and between companies allows faster response for everyone involved.
3. Richard Florida’s Creative Class: Composed of “*entrepreneurs, engineers, professors and artists who create meaningful new forms*”, these individuals want to live in nice places and enjoy a culture with a tolerance for “*new ideas and weirdness and, most of all, want to be around other creative-class individuals.*”
4. The Boulder Thesis. Feld’s own four components to building startup communities:
  - 4.1. entrepreneurs must lead the startup community
  - 4.2. the leaders must have a long-term commitment
  - 4.3. the startup community must be inclusive of anyone who wants to participate in it
  - 4.4. the startup community must have continual activities that engage the entire entrepreneurial stack

Feld highlights that leaders must embrace porous boundaries.

The Las Vegas Downtown Project website states:

*Community development is more about the people than real estate, so physical spaces should reflect the community’s values. By catalyzing community efforts, we hope to inspire people to follow their passions. And by doing so, we’re helping to build the most community-focused large city in the world.*<sup>175</sup>

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<sup>173</sup> Feld, B. *Startup Communities* 2012, (John Wiley & Sons, Inc, New Jersey), 22.

<sup>174</sup> <http://www.fastcompany.com/1446569/why-you-should-start-company-boulder>

<sup>175</sup> <http://downtownproject.com/>

However, the Downtown Project has yet to fully engage the local residents and entrepreneurs who could support the project, and struggled with defining the porous boundaries of Las Vegas and what does and does not constitute the “community”. The structure of an ecological community matures over time and is called succession. There are two kinds of succession: primary succession, where no previous community has been present; and secondary succession, where a community has been removed. It appears that the Downtown Project may have approached the city as a primary succession, when in fact it is a secondary one.

## Los Angeles

Los Angeles is defined by its freeways. Running alongside Santa Monica beach is Pacific Coast Highway 1. US freeway numbering goes north-south for odd numbers, and east-west for even numbers, which means the 10 freeway heads straight east through the Los Angeles CBD, which is 25 kilometers of urban sprawl away.

A few years ago, before Tony Hsieh began redeveloping Las Vegas, Mayor Antonio Villaraigosa partnered with a group of twenty-five serial entrepreneurs, academics, executives and creatives including Zack Zalon of Wilshire Axon and Mitra Best (US Innovation Leader at PwC) who came together from all over LA (from Beverly Hills to Burbank) to help grow the local startup ecosystem. Contrasting Las Vegas, Los Angeles offers a case study where the city has been strategically involved.

The group worked on five areas of focus:<sup>176</sup>

*Narrative: to create a compelling and real story for LA that defines it as the go-to place for business innovation and fundamentally changes its' perception, ensuring this city is in the top three list of must consider locations for talent, investors, businesses, and entrepreneurs.*

Los Angeles suffered from an extremely poor perception compared to the actual reality. The city ranked last, or almost-last among the top 35 American cities in the general public's perception of safety, public transportation, and intelligent people when the truth was that Los Angeles is the 2nd safest big city in the USA, the #1 city for public transit access, and the #1 county in the USA for PhDs: the Internet was invented in Los Angeles, along with the Space Shuttle and Stealth Bombers.

*Policy: to help local government play a more active and impactful role in supporting and growing LA's innovative ecosystem.*

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<sup>176</sup> [http://www.lamcii.org/media/1024/lamcii\\_leading\\_edge\\_2012.pdf](http://www.lamcii.org/media/1024/lamcii_leading_edge_2012.pdf)



- The Mayor extended a three-year extension for the exemption from gross-receipt taxes for startups.
- Proposed ways in which to leverage earmarked Federal-grant funds for job creation and retention and utilize them to drive startup job growth.
- Reached out to international trade partners in South America and China.

The team worked with the local government and realized that the stretch of the 10 freeway between Santa Monica and Los Angeles CBD had huge amounts of unused office space. Furthermore, a lot of startups were clustered along this same area: in West LA and downtown Los Angeles. With the ability to leverage real estate values for developers, the Mayor's office developed a strategy to connect the growth of startup jobs by focusing on a Light Rail line, Texpo. Several city-owned parcels of land are being used in public-private partnerships to create Innovation Hubs along the transit corridor, working with universities USC and UCLA to become cornerstone tenants.

*The goal is to create next-generation working environments: tech-friendly amenities, quality community space, hands-on workshops, food, cycling resources, art space... Innovation will happen when companies and people of all types are connected together in a connected community, with easy public-transportation access from downtown to the beach.<sup>177</sup>*

The project has faced numerous delays and cost overruns due to design enhancements, safety concerns, and increases in construction prices (US\$640 million became \$930 million)<sup>178</sup> but has recently reached the halfway point and is due for completion in 2015.<sup>179</sup>

*Network: to help entrepreneurs find LA's resources and connectivity tools in order to support the natural growth of its innovation ecosystem*

The Mayor's office launched Edge.LA, which will make it easy for people trying to access members of the startup community. They also began working with brokers and developers to create tech-friendly commercial real estate standards, and created a 25-member Ambassador Programme to serve as conduits between the city and various businesses and geographical sectors of LA.<sup>180</sup>

<sup>177</sup> [http://www.lamcii.org/media/1024/lamcii\\_leading\\_edge\\_2012.pdf](http://www.lamcii.org/media/1024/lamcii_leading_edge_2012.pdf)

<sup>178</sup> <http://articles.latimes.com/2011/apr/03/local/la-me-expo-line-20110403>

<sup>179</sup> <http://www.culvercityobserver.com/story/2013/10/17/news/expo-line-phase-two-reaches-halfway-point/3113.html>

<sup>180</sup> [http://www.lamcii.org/media/1024/lamcii\\_leading\\_edge\\_2012.pdf](http://www.lamcii.org/media/1024/lamcii_leading_edge_2012.pdf)

*Education: to leverage relationships with our universities that will grow the entrepreneurial ecosystem, improve access to talent and better opportunities for students.*

The group found “unbelievable” resources in the LA higher education system which had been untapped, with a lack of connection between the academic and business communities. Since 2008, 54% of UCLA’s engineering graduates chose to relocate.

In response, Startup UCLA was founded in 2012 in partnership with PwC; a talent-retention index will now be published with year-over-year comparisons; and a Fellowship Programme will act as a centralized hub that will feed graduates into positions at startups.

*Capital: to improve access to capital for LA’s growth community so that it is more in line with the opportunity that currently exists.*

Los Angeles is the fifteenth largest economy in the world, and the richest city in America, with 268,138 millionaire households. Even though LA has a history of big exits, including Overture, Green Dot, MySpace, Shopzilla, PriceGrabber and Rent.com, the group found that too little capital focused on startups, compared to the amount of activity. In 2012, over thirty LA-based startups raised over \$5 million each. CNN Money found 63% of LA entrepreneurs have previous experience in the market they are targeting. The council is now reaching out to the greater VC community, local high net-worth individuals, and educating LA’s pension funds about the opportunities for investment in local startups.

Los Angeles is now ranked third in the global startup index.

One of the organisations Free Range visited in Los Angeles was the Larta Institute, which has studied and delivered entrepreneurial training programmes worldwide over fifteen years (US, Asia, Europe and South America). Carlos Gutierrez from Larta says that Michael E Porter’s cluster theory<sup>181</sup> has become more sophisticated, and is developing incubators and accelerators in two directions:

1. Deeper verticals or niches based on local strengths, like Tony Hsieh’s fashion incubator in Las Vegas or Level39’s FinTech accelerator at Canary Wharf in London. Gutierrez says specialisation also assists during their global bridge process, where mentors and

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<sup>181</sup> Michael E. Porter’s research into clusters in the 1990s showed how clusters foster high levels of productivity and innovation.

programmes can be developed more efficiently when a group of companies in a programme are from a similar vertical.

2. Network-centric approach: addresses the potential for entrepreneurs to become too protected in an incubator environment within a global context. The approach calls for “just-in-time” assistance across a global network which is provided by the incubator, and developed by Larta. Their CEO Rohit Shukla says:

*Many [entrepreneurs] discover, later than they should, that they have simply not dealt with critical factors affecting any modern high growth enterprise: their markets, their competitive profiles and their visibility to potential customers and partners...The notion of a feedback loop providing constant inputs...is not in use in clustered environments.<sup>182</sup>*

## Sydney

Sydney is ranked 12th for startup ecosystems by Startup Genome. A Google-funded PwC report found there are nine hundred and fifty tech startups in Sydney, 64% of around fifteen hundred nationwide. They report that with acceleration of growth, the tech startup sector could contribute 4% of Australian GDP by 2033, and directly employ approximately 540,000 people.<sup>183</sup>

Atlassian is perhaps Sydney’s most high-profile startup, with US\$150 million in revenues for 2013’s fiscal year, up from US\$110 million in fiscal 2012.<sup>184</sup> “If you believe as Marc Andreessen does, that software is eating the world, then Atlassian is its Chef,” reports Forbes.<sup>185</sup> Atlassian designer Benjamin Humphreys reports:

*The startup scene in Sydney is a really tight group of startups, many working in co-working spaces such as Tank Stream Labs. Atlassian sponsors a lot of events, particularly user groups like SydJS [a local JavaScript Group], Girl Geek Dinners, etc. People like each other and socialise a lot, sharing knowledge and experience over drinks and regular meetups. The scene is especially open to newcomers, and a lot of ex-Atlassians go on to found their own companies.*

A recent study found 49% of private Australian firms are owned by serial entrepreneurs, with a similar to

<sup>182</sup> Rohit K. Shukla. *Supporting High Growth Entrepreneurs*, (Larta Institute, 2012), 3.

<sup>183</sup> <http://www.digitalpulse.pwc.com.au/wp-content/uploads/2013/04/PwC-Google-The-startup-economy-2013.pdf>

<sup>184</sup> <http://techcrunch.com/2013/10/13/atlassian-earned-150m-in-revenues-last-year-but-competition-intensifies-with-collaboration-providers/>

<sup>185</sup> <http://www.forbes.com/sites/markfidelman/2012/05/04/why-atlassian-is-to-software-as-apple-is-to-design/>

higher proportion in the US (51% to 64%).<sup>186</sup> Startup Genome reports two out of five Australian founders try again.

The PwC report found five areas to accelerate the growth of the Australian tech startup ecosystem:<sup>187</sup>

1. Enhance culture and community engagement: participation; success rate; serial entrepreneurship and mentorship; rate of growth of firms; angel funding from successful entrepreneurs
2. More entrepreneurs with the right skills
3. Open up markets to Australian tech startups. A domestic market of 23 million could be opened up with the US (314 million) and the UK (63 million). Additionally, the Australian government's procurement contracts were A\$41 billion for the 2012 financial year
4. More early stage funding. Funding in Australia is still in short supply because many investors have lost money or had below-average returns. Deal values are too small and administration costs too high for super funds to participate.
5. Improve the regulatory environment. Relatively supportive employee share option plans were recommended to be more in line with the UK and the US.

In the "Silicon Beach" Australia Lifeguard Paper,<sup>188</sup> Elias Bizannes (2009) used input from the startup community to make recommendations about ways to build Australia into a world class global startup ecosystem:

- Upskill Australians through education (e.g. strong engineering and product skills).
- Make it easier to hire top international talent (e.g. visas).
- Create a more supportive and mentoring culture.
- Facilitate faster, better and cheaper internet access (e.g. allocate a proportion of funding to improving international data pipes, remove filtration of the internet, and manage the NBN as a wholesale network).
- Improve tax incentives (e.g. ESOP, R&D tax breaks, two year tax exemption for startups).
- Improve innovation and research grants (e.g. remove requirements for matching funds, reduce administrative and time burden for applying for grants).
- Level the playing field with other industries in Australia which receive far more attention.

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<sup>186</sup> [http://isb.sagepub.com/site/Virtual\\_Special\\_Issues/Habitual\\_Entrepreneurs\\_Intro.pdf](http://isb.sagepub.com/site/Virtual_Special_Issues/Habitual_Entrepreneurs_Intro.pdf)

<sup>187</sup> <http://www.digitalpulse.pwc.com.au/wp-content/uploads/2013/04/PwC-Google-The-startup-economy-2013.pdf>

<sup>188</sup> <http://www.siliconbeachaustralia.org/lifeguard/>

# Thanks

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The following two panels provided invaluable insights:

## PANEL 1: Accelerators, Hubs, Shared spaces, Nurseries - engines for innovation

- **Tzahi (Zack) Weisfeld**, Co Founder, management team member and Sr. Director of Microsoft Ventures, overlooking Microsoft Ventures Global Accelerator programme and footprint and directly responsible for Microsoft Ventures EMEA expansion.
- **Jon Bradford**, Managing Director of Techstars in London. Since launching Europe's first bootcamp accelerator in 2009 – The Difference Engine – he helped to launch Springboard now based in Cambridge and London. In addition, he has also founded ignite100, a re-invention of the Difference Engine, that combines a 13 week accelerator with follow on funding of up to £100k per team and Startup Wise Guys in Estonia, Eleven in Bulgaria and TexDrive in Moscow.
- **Maurizio Rossi**, co-founder H-Farm Ventures, an Italian incubator.
- **Vasily Belov**, director of the energy efficiency cluster at the Skolkovo Fund, Innovation Center in Russia.
- **Shai Goldman**, Venture Partner at 500 Startups, a global seed stage VC firm that has made over 600 investments since inception and run an accelerator in the both the Bay Area and Mexico City. Shai manages the NYC office, makes investments and assists in portfolio management.
- **Yossi Smoler**, Technological Incubators programme Manager, Office of The Chief Scientist, Ministry of Economy, Israel.
- **Abdul Malek Al Jaber**, Founder and Chairman of MENA Apps and ARABRENEUR, the leading acceleration initiative in the MENA region.

## PANEL 2: Funding models and strategies

- **Dror Berman**, Innovation Endeavors. Dror was previously at Yahoo, R&D at NICE, and three years in an elite unit at the Israeli Defence Forces.
- **Marc Goldberg**, Maslow Capital Partners, a Paris-based global merchant bank focused on supporting the growth of European/Israeli CEO's) with over 20 years of investment and operation experience in the technology industry in the US and in Europe.
- **Katia Gaika**, Deputy Director of the IT Cluster of Skolkovo Foundation (Russia's Silicon Valley project).
- **Rubi Suliman** partner in high-tech practice at PricewaterhouseCoopers, Israel - Kesselman & Kesselman.
- **Joy Marcus**, Gotham Ventures. Joy was named to the Digital Power 50 by the Hollywood Reporter in 2009 and 2010. She has held senior executive positions at Time Warner (AOL) and Barnes&Noble.com, which she helped take public in 1999.
- **Gilad Novik**, Horizons Ventures: In 2010 Gilad joined Horizons Ventures VC team as the CTO and successfully identified and engaged with all of Horizons' investments activities in Israel.

## International

- **Avi Hasson**, Chief Scientist of the Ministry of Economy of Israel.
- **Benjamin Humphrey**, Designer at Atlassian, Sydney.
- **Bob Schwartz**, Angel investor and former CEO of Magento and creator of Nordstrom Online, Los Angeles.
- **Carlos Gutierrez**, Larta Institute, Los Angeles.
- **Choi, Yu-Jin**, Start Up Team, Asan Nanum Foundation, Seoul.
- **Courtenay Gasking**, ENTP.com, Las Vegas.
- **Dave McClure**, 500 Startups Founder, Silicon Valley.

- **Dovi Ollech**, Chief of Staff and Senior Advisor, Office of the Chief Scientist, Israel.
- **Gili Drop-Heistein**, Yuval Ne'em Workshop for Science Technology and Security, Tel Aviv University, Tel Aviv.
- **Glenn D Fogel**, Head of Worldwide Strategy and Planning, The Priceline Group.
- **Hugo Bieber**, Chief Executive UK Israel Business, London.
- **Jerome Smith**, Co-Director, MIT Mentor Service, Cambridge.
- **John Harthorne**, Mass Challenge, Boston.
- **Josh Ellis**, Writer/CTO, Las Vegas.
- **Joshua Feast**, Co-Founder Free Range, Boston.
- **Joshua Mitnick**, Israel correspondent, The Wall Street Journal, Tel Aviv.
- **Kim Young Soo**, Regional Industry Team, Korea Institute for Industrial Economics & Trade, Seoul.
- **Kjetil Holmefjord**, Innovation Norway, Innovation House, Palo Alto.
- **Laura Berk**, Vegas Tech Fund, Las Vegas.
- **Leon Grice**, NZ Consul-General, Los Angeles.
- **Levi Shapiro**, General Partner, Jimmi Fund, working with Japanese technology companies to invest in Israeli startups.
- **Marta Mager**, NZTE Regional Director North America, Los Angeles
- **Maurizio Rossi**, Co-Founder and Executive, H-Farm Ventures, Italy.
- **Michael A M Davies**, Senior Partner of Endeavour Partners and Senior Lecturer at MIT, Guest Lecturer at the London Business School, Boston.
- **Moritz Simmersbach**, Project Manager DLD Conference, Munich.
- **Naomi Krieger-Carmy**, Director, Israel Tech Hub. Leads a team to promote partnership in technology and innovation between UK and Israel.
- **Nathalie Boulanger**, Senior Vice President, Group Marketing & Innovation of Orange, France. Nathalie is in charge of the Orange Startup Ecosystem within the Orange Group.

- **Rene Rechtman**, Serial Entrepreneur, GoViral founder/CEO, sold to AOL.
- **Reuben Metcalfe**, IDreamOfSpace, San Francisco.
- **Ryan Kangisser**, MediaSense, Digital Lead, London.
- **Scott Heiferman**, Founder/CEO Meetup.com. 15 million members in 196 countries. New York.
- **Simon Sacerdoti**, Founder, WeSwap, London.
- **Stuart Soffer**, IP Advisor and Technical Strategist to VCs at Ipriori Inc, Palo Alto.
- **Tali Pais**, Event manager, Startup Tel Aviv.
- **Tal Maoz**, Projects and Initiatives Coordinator, Tlalim Strategy.
- **Tony Saigh**, Saber Growth Partners. ex-Skype, one of first mobile employees, London.
- **Victoria Ransom**, Wildfire founder acquired by Google. Mountain View.
- **Yael Kochman**, Roojoom Founder, Paris.
- **Yossi Vardi**, Tel Aviv.
- **Zack Zalon**, Managing Partner Wilshire Axon and LAMCII founding member, Los Angeles.

## New Zealand

Enspiral, Grow Wellington, Wellington City Council

Aimee Whitcroft, Alex Dong, Alex Hannant, Andrew Simmonds, Andy Wilkinson, Anne-Marie Sullivan, Anthony Cabraal, Antonia Bale, Arturo Pelayo, Breccan McLeod-Lundy, Chelsea Robinson, Cody Bunea, Conor Kinkeade, Craig Ambrose, Dan Laufer, Dave Moskovitz, David Russell, Derek Sivers, Drew Broadley, Duncan Nimmo, Greg Clydesdale, Greg Elisara, Geoff Leyland, Guy Ryan, Hal Josephson, Ian Fay, Ian Taylor, John Morrow, Jon Lemmon, Jose Ganga, Josh Dean, Josh Forde, Julie Fowler, Katie Catchpole, Lance Wiggs, Leanne Graham, Matt Kennedy, Matthew Ellingsen, Meili Han, Melissa Clark-Reynolds, Michael Elwood-Smith, Michael Koziarski, Michael Sly, Nanz Nair, Nigel Taptiklis, Phil Cockfield, Philippa Bowron, Prue Cruickshank, Richard Fortune, Rob Acton, Rob Cameron, Rose Wu, Ross Christie, Ross Gasking, Rowan Simpson, Rowan Yeoman, Sacha Judd, Sebastian Marino, Silvia Zuur, Stefan Korn, Stephen Olsen, Suse Reynolds, Suzanne Snively, Trent Yeo, Will Lau.



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